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PLANNING AND COORDINATION OF PUBLIC HIGHER EDUCATION IN OHIO. THE 4TH ANNUAL REPORT OF THE OHIO BOARD OF REGENTS FOR THE YEAR ENDING JUNE 30, 1967.

Ohio Board of Regents, Columbus.

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The philosophy of public higher education underlying the planning and coordination of higher education institutions in Ohio is set forth. A master plan based on this philosophy proposes to establish technical institutes, additional community colleges and university branches, convert some municipal universities into state universities and develop new state universities. Proposed financial support to implement the master plan is listed in terms of support per student and allocation of construction funds by institution. The appendices summarize the 1966-67 data regarding student enrollment and income-expenditure for the municipal universities, community colleges and state universities. (HH)

PLANNING AND COORDINATION
OF PUBLIC HIGHER EDUCATION
IN OHIO

The Fourth Annual Report
of the
Ohio Board of Regents

For the Year Ending

June 30, 1967

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For the Year Ending

June 30, 1967

**U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION**

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OHIO BOARD OF REGENTS

88 East Broad Street, Room 770
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October 19, 1967

Honorable James A. Rhodes
Governor, State of Ohio

Honorable Theodore M. Gray
President Pro Tempore
State Senate of Ohio

Honorable Charles F. Kurfess
Speaker, Ohio House of Representatives

Gentlemen:

On behalf of my colleagues, I transmit herewith the Fourth Annual Report of the Ohio Board of Regents for the fiscal year ending June 30, 1967. Actually, this is more than an ordinary annual report.

Because September 20, 1967, marked the fourth anniversary of the creation of the Ohio Board of Regents and because these past four years have been crucial and productive in developing the public system of higher education in Ohio, we wish to record here the major events not of one year but of our history to date. We believe this report presents a comprehensive and clear account of the actions which have been taken to promote a new structure and quality of public higher education in this state.

Once again let me express the appreciation which the Board of Regents has for the cooperative and generous support the Board has received from you personally and from your colleagues in the executive and legislative branches of state government.

Cordially yours,

A handwritten signature in dark ink, reading "John Marshall Briley". The signature is fluid and cursive, with a large, looping initial "J".
John Marshall Briley
Chairman

I. A PHILOSOPHY OF PUBLIC HIGHER EDUCATION

The Ohio Board of Regents was created by House Bill No. 214 of the 105th General Assembly, effective September 20, 1963. For the first time in the history of the State of Ohio, a state-wide administrative agency was established by law charged with the duty of planning and coordinating the state interest in higher education. The Ohio Board of Regents has now completed four years of activity in carrying out its pioneer task.

It must be emphasized that the Ohio Board of Regents is not a governing board for public higher education in Ohio, but a planning and coordinating board. There is an important distinction. By uniform provision of law, state universities and community colleges are each individually bodies politic and corporate. The authority of government is vested in the board of trustees of each university and college. The duties assigned to the Ohio Board of Regents do not supersede this authority. Indeed, during its brief existence, the Board of Regents can point to notable accomplishments in legislation recommended by it and enacted by the General Assembly and Governor which have strengthened the management position of the individual state universities.

The role of the Ohio Board of Regents is to assist in formulating a state government point of view in the field of public higher education. The chief executive of Ohio in his authority to appoint members of the boards of trustees, in his authority to "see that the laws are faithfully executed," and in his authority to recommend to the General Assembly "such measures as he shall deem expedient" must determine the broad outlines of desirable public policy affecting higher education in Ohio. The General Assembly in its authority to exercise "the legislative power of the state" must determine the legal powers and the legal limitations of state universities and community colleges. In addition, the executive budget and the biennial appropriation laws determine what state support shall be available for the current operations and the capital improvements of public higher education. State government must make these decisions. The Board of Regents has

sought to provide professional judgment and thoughtful consideration on a state-wide, objective basis as counsel to the officials of state government in the process of their decision-making.

In performing its role as a planning and coordinating agency for public higher education, the Ohio Board of Regents has had to develop a philosophy of public higher education, has had to make explicit a point of view about what the State of Ohio should undertake to accomplish through public higher education. Obviously, the Board of Regents did not start from scratch in this endeavor. In 1963 there were five state universities, one state college, two community colleges, and some 33 state university academic centers in existence. In addition, in 1963 the State of Ohio began to provide financial support to the three municipal universities in Ohio. There were also in existence a considerable body of laws and a long history of activity which established the framework of public higher education in Ohio.

The Board of Regents has necessarily endeavored to build its own basic philosophy upon the law and experience of the past, as well as upon a careful review of current needs and emerging problems. The Board of Regents has endeavored at all times to do this in terms of the public interest, the state-wide interest, which should be served by all public institutions of higher education in Ohio.

Development of Individual Talent

Education at all levels in our society is concerned with individual achievement. Education is a social and cultural process which seeks to assist individual persons in obtaining literacy in the use of language, in developing their capacity to learn about the world and society of which they are a part, and in perfecting their inherent ability to perform useful work in society.

Higher education is that part of this formal process of education which occurs after secondary education. Higher education provides an opportunity for the high school graduate to enhance his learning, to advance his capacity to learn, and

to prepare himself for para-professional or professional employment.

In this whole educational process, the individual student must make the effort to develop his own abilities to the fullest extent consistent with his talent and his interest. Others may encourage, guide, assist, and direct the individual in his learning activity. In the end, it is the individual who learns and who makes use of learning. There is no substitute for the effort of the individual.

State government, and the State of Ohio in particular, has a social interest in and obligation to this process of education. A democratic society is feasible only if there is a literate citizenry. A free society is possible only if individuals have opportunities to develop and to use their talents. A prosperous society is realizable only if individuals obtain the educational levels needed to contribute effectively to technological improvement and economic growth.

American society has been described in our day as consisting of a complex technology, an advancing science, and large-scale organizations. These very characteristics have discouraged or alienated some persons who doubt their capacity to function within such a social system. To certain persons, technology, science, and organization are considered hostile to individuality. Some persons apparently wish to turn their backs alike upon the benefits and the problems of present-day social, economic, and political life. To other persons, technology, science, and organization are challenges which demand renewed effort by individuals to contribute to the welfare of all and to make a place for creative talent.

Let us accept the proposition that ours is a society with complicated work processes and systems, with an expanding knowledge of the biological and physical properties of life and environment, and with large groups of people working together to provide the products and services we require and consume. In such a society, education takes on an importance for individuals and for nations such as it has never had before in man's known experience.

In our own national history, we have long recognized two basic propositions about education. One was that a common level of schooling was desirable for all individuals expected to participate

in community affairs. The nation in this century has become a major community with which we are all vitally concerned. The second proposition was that higher education was needed in order for some individuals to practice essential professions in society. During our colonial experience, some nine colleges were created to provide ministers, lawyers, and certain other learned persons who rendered professional service to others. Over the years, we have had to expand our concept of common schooling and of professional education to keep pace with changing circumstances.

For an agency concerned with higher education, it is especially important to have a clear understanding of the changing scope of this activity. The period in our history before 1860 has been called the age of the college; the period since 1860 has been called the age of the university. We need a new label for the period since 1940 or 1945: the age of research and service. These designations tell much about the activity of higher education.

Until 1860 American higher education meant primarily an undergraduate education in the arts and sciences, although the science part of this education was relatively simple. After 1860 three new directions began in higher education. For one thing, undergraduate education became increasingly practical and more specific in terms of professional preparation. For example, engineering education, agricultural education, business education, and teacher education became important new fields of undergraduate study. Secondly, graduate study began to emerge, both in academic disciplines and in professional fields such as medicine, law, and theology. In the third place, attention was given to research and to public service in promoting use of new knowledge. Initially, this effort was undertaken with federal government financial assistance in agriculture through experiment stations and extension services. Since 1940, under the impact of World War II and in consequence of a rising concern for national health, the federal government has utilized universities for research and for various services both at home and abroad. In this same period, the revolutionary expansion of knowledge has lengthened the process of higher education.

We shall say more about enrollment growth in

higher education below. We may note in passing, however, that the rapid increase in higher education since 1945 reflects not so much an increase in the college-age population in America as it does an increase in the proportion of college-age youth actually going to college and a substantial lengthening of the time spent in higher education. More youth have wanted or needed higher education, and thanks to the circumstance of growing family wealth, more youth have had the opportunity to go to college. Furthermore, an undergraduate education has not been sufficient to provide students with the educational preparation required for various professions. Increasingly, students have continued their studies beyond the baccalaureate level in graduate colleges and in graduate-professional schools.

Today there is no easy or convenient stopping point in the process of higher education between the first year after high school and the top graduate and graduate-professional degrees which require from three to four years of education beyond the baccalaureate level. To be sure, some students may not attend higher education beyond two years. Others may halt their formal education with a bachelor's degree. Nonetheless, we shall not have the doctors and dentists, the lawyers, the engineers, the college and university teachers and the scientists our society needs unless we carry the formal process of higher education through the graduate and graduate-professional years.

There is another concern which is now emerging. It may be called "mid-career" education. More and more school teachers, college teachers, engineers, doctors, scientists, and others are seeking to upgrade their knowledge and their skill after 20 years of professional practice. Some form of continuing education may be desirable in many professions, but a formal mid-career period of education may be increasingly necessary in a society where both technology and science are advancing so rapidly.

Amid all these concerns with social developments and educational requirements, we should not forget that the first objective in higher education is to enhance individual talent and individual capacity to contribute usefully to the welfare of others. A system of higher education in Ohio and elsewhere in America must always keep

its effort clearly directed toward the education of individuals. It is the individual talent which higher education seeks to cultivate and which society continues to need.

The Supply of Professional Talent

Among professional educators in higher education, there is some conflict in point of view about basic objectives. Most persons interested in higher education would agree with the statements just made above which point out the importance of individual talent and interest in the education process. We have underlined here, however, the role of the individual as a functioning, useful member of society. This emphasis does not detract from or deny the usefulness of the social critic. At the same time, society as opposed to anarchy presupposes some minimum degree of socially acceptable behavior and of consensus in individual thought.

There are educators and others who think of knowledge primarily as an individual satisfaction, as a personal commodity. These individuals prefer to look upon higher education as a means whereby a person broadens his own intellectual outlook, pushes back his own ignorance, and acquires a new understanding of himself and the world about him. The purpose in such education is not to make the individual socially useful; it is to make the individual happier or wiser in his own personal attitudes.

This is a highly individualistic point of view about higher education. We have no desire to criticize this position in and of itself. But this sense of purpose in higher education raises some very profound issues of economics and of government which must be answered. If higher education is a personal satisfaction, then in economic terms higher education can be considered to be a consumer good to be purchased like other consumer goods and services. The implication then is that the consumer should pay for the satisfaction he receives, measuring this satisfaction against other satisfactions in the use of his personal or family resources. If higher education is considered to fall in the realm of a desirable government service, then is it a service to be rendered to everyone? If it is not a service for all, then how and why do governments discriminate among citizens in deciding who shall receive the

benefits of the service? In fact, state governments have provided higher education service only to those who presented themselves for the service, and then have justified retention on a selective basis depending upon the talent and effort of the individual student.

The point of view we would emphasize here is that higher education is more than a matter of providing satisfaction to individuals. In economic terms, higher education may be regarded as a capital investment in creating a productive labor force. In social terms, higher education may be regarded as preparation of individual talent to perform essential services to other citizens. In governmental terms, higher education may be regarded as an essential service whose importance is so great that government must underwrite its performance. It is in these terms that a substantial governmental investment in higher education must be considered not only as justifiable but as imperative. Just as common schooling is an investment in democracy, higher education is an investment in social need.

In considering the social need for higher education, the first concern is that of the supply and demand for professional talent. The Ohio Board of Regents has had this concern in the forefront when making individual decisions about new instructional programs and new educational institutions.

Manpower statistics and manpower projections in the United States have been unfolding a startling story in recent years. At the beginning of this century, only 18 percent of all jobs in this country required formal educational preparation, and only 4 per cent of these jobs were classified as professional. The remaining 82 percent of all jobs in the United States included various categories of employment where formal educational preparation had not been considered necessary. Steadily, these proportions have altered throughout this century. As of 1964 it was reported that 12 percent of all employment was in the professions, and another 31 percent of all jobs were those where some education beyond high school was considered desirable. This left only 56 percent of all jobs in the categories where a high school education or less might be the desired educational preparation. This trend is continuing. By 1975 it is estimated that 50 percent of all em-

ployment will require some education beyond the high school, and most of these will be professional. The proportion of employment which will be available to high school graduates or those with lesser educational background will have been reduced to 50 percent.

These same trends are applicable to Ohio. Indeed, as a major industrial state, these trends will be accentuated in Ohio as more industrial processes are automated and as industry becomes increasingly in need of engineering, scientific, managerial, and other professional personnel.

The planning activity of the Ohio Board of Regents continually seeks to assess the supply and demand for educated talent in various professions and in other categories of employment. There are substantial shortages in Ohio of doctors, dentists, nurses, engineers, school teachers, college and university professors, scientists, accountants, economists, managerial personnel, social workers, and librarians, among others. There is also a substantial shortage of technicians in engineering, health, and business technologies to assist professional personnel in their practice.

There are, of course, occupations which do not appear in employment statistics. The two principal categories of such occupations are those of housewife and of volunteer service to various religious, charitable, welfare, fraternal, and civic agencies. Many college graduates, and especially women students and graduates, will be found in these two occupational groupings. Thus, higher educational enrollments cannot be clearly and closely related at all times to professional employment demands.

Representations have been made to the Ohio Board of Regents on several occasions that the professional employment of women tends to lag behind the available or potential supply of women. It is very difficult to determine whether or not there is unemployment of women in various professions, since it is difficult to determine when women are available for full-time or part-time employment. It is sometimes said that more women would prepare themselves for professional employment in various professions if there were some assurance of employment after their education. From time to time we hear also that women are discriminated against in employment opportu-

nities. Where such discrimination may actually occur, we are told that it arises primarily from a doubt whether women who are employed in professional jobs will remain a sufficiently long time to justify the expense of the preliminary period of experience on the job. This kind of doubt is understandable, if perhaps not always justified.

No representations have been made to the Board of Regents at any time about a lack of professional employment opportunities for Negroes. On the contrary, we have been informed on a number of occasions that there are more professional opportunities for Negro educated talent than there are educated Negroes to fill such positions. We have reason to believe that there

is no discrimination in the admission or retention of students on the basis of race, color, religion, or national origin at any state-assisted college or university in Ohio. There may be economic barriers which affect the Negro student more severely than other students. And there may be inadequacies in the educational preparation of the Negro student to undertake college study. These inadequacies may be the result of family, economic, environmental, and school circumstances. In any event, it is to be hoped that an increasing number of Negro students will enroll in higher education and will enter various professions.

The developments over recent years in the

Table 1
Degrees Awarded
Ohio Public Colleges and Universities
Selected Years 1955-1967

Degrees	1955-56	1960-61	1966-67
Associate Degrees	—	—	1,611
Baccalaureate Degrees	7,504	10,027	16,198
Arts & Sciences	2,512	3,801	7,186
Business Administration	1,723	1,760	2,348
Education	1,700	2,400	3,897
Engineering	616	1,007	1,102
Other	953	1,059	1,665
Master's Degrees	1,459	2,031	4,245
Graduate-Professional Degrees	717	700	788
Dentistry	119	123	125
Law	167	158	261
Medicine	228	212	227
Optometry	21	25	15
Pharmacy	115	115	95
Veterinary Medicine	67	67	65
Doctor's Degrees	266	309	586
Total	9,946	13,067	23,428

award of degrees by public institutions of higher education in Ohio are indicated in Table 1. From these data, it will be noted first of all that some 1,600 associate degrees were awarded in the aca-

demic year ending June 30, 1967, whereas no such degrees had been awarded in 1961 or in 1956. The number of baccalaureate degrees increased from 7,500 to over 16,000 in the eleven-year pe-

riod. The rise in the number of degrees in the arts and sciences is especially noteworthy. It will be observed that 44 percent of all bachelor's degrees conferred by the public universities of Ohio in 1966-67 were in the arts and sciences. This increase reflected increasing interest on the part of students in entering graduate study or a graduate-professional school in order to prepare for a profession. The number of degrees in teacher education was 24 percent of all bachelor's degrees in 1966-67. Of the remaining degrees conferred at the baccalaureate level, nearly 15 percent were conferred in business administration and nearly 7 percent in engineering. The number of degrees in business increased only 36 percent between 1956 and 1967, while engineering degrees increased nearly 60 percent. On the other hand, the number of bachelor's degrees as a whole increased by 116 percent.

The increase in the number of master's degrees and in the number of doctor's degrees conferred by public institutions between 1956 and 1967 is especially noteworthy. The number of master's degrees increased by nearly 200 percent, and the number of doctor's degrees by 120 percent.

Contribution to Economic Growth

Perhaps no domestic problem is of greater importance to the American people than that of ensuring continued economic growth. In comparison with the accomplishments of other nations, ours is an affluent economy. In terms of unmet material needs, our economy is one in which demands still exceed our productive capacity. Only economic growth—an expansion of productive output in goods and services—can help to meet our unfulfilled needs.

One study recently reviewed the production levels required to achieve various national objectives which had been enumerated by President Eisenhower's Commission on National Goals. This study found a decided gap as of 1975 between the productive output required to meet national goals and the projected productive capacity for that year. This means that our production objectives for various goods and services, including national defense, may well exceed our input resources for many years to come.

There is considerable discussion among business leaders, government leaders, and economists about the conditions and circumstances required for sustained economic growth. Although there is a good deal of disagreement about various matters, there is a considerable agreement about certain basic propositions. It is generally agreed that economic growth means an increasing output of goods and services. It is generally agreed that an increasing output depends upon improvements in production processes, the expansion of productive plant, the development of new products, and an increased supply of professionally and para-professionally educated talent.

In the past several years a number of economists in the United States and abroad have come to look upon educational expenditures, and especially educational expenditures at the higher education level, as an investment in productive capacity. We have come to understand that there is a qualitative as well as a quantitative importance to a nation's work force. This qualitative factor has to do with the educational attainment of the people who do the productive work of a nation. It has become critical to a nation's economic growth to have a supply of educated talent, not just a supply of people.

There is still a great deal to learn about economic growth in the United States, and about economic growth in Ohio. It does seem clear, however, that economic growth in our nation and in our state is related to our educational effort and to our educational accomplishment. The exact relationship is still to be explored, and from better knowledge may come more effective action to ensure that educational activities and educational support do contribute to economic growth.

One subject of great concern to the Ohio Board of Regents during its first four years has been the research performance of Ohio's universities. Various data available to the Board's staff have clearly indicated that Ohio has not received its fair share of federal government support for university research projects. To be sure, "fair share" is not a clearly defined standard. But some comparison can be made among states on the basis of grant distribution by federal research agencies in relation to population. Such a comparison is provided for selected states in the accompanying table.

The data in Table 2 show that Ohio has not fared well in comparison with these other states. Inquiries or complaints about this situation have been met with the response that Ohio's universi-

ties, and especially its public universities, have not had the plant, personnel, and other resources required in order to receive major research support from the federal government.

Table 2
Comparison of Population Distribution
and Research Grants by the National Science Foundation
and the National Institutes of Health
Selected States

	% National Population	% Program Grants National Science Foundation F. Y. 1966	% Program Grants National Institutes of Health F. Y. 1966
Massachusetts	2.79	6.62	8.96
New York	9.36	9.38	15.77
Pennsylvania	5.99	4.04	6.64
Texas	5.43	6.30	3.18
California	9.45	12.22	11.48
Ohio	5.28	2.41	3.20
Michigan	4.23	3.08	3.42
Indiana	2.52	3.26	1.47
Illinois	5.48	5.07	5.51
Wisconsin	2.15	1.79	2.31

This situation is one which calls for definite concern. Federal research grants are essential today in order for a university to build effective programs of graduate study, especially in the physical sciences, the biological sciences, engineering, and mathematics. It is graduate study which provides the top talent important to industry in carrying out its research and development activities. It is graduate study which provides the top talent important to higher education instruction and research. It is graduate study which provides the top talent needed by government in its manifold services.

University research is a basic national and state resource. University research provides the expansion of knowledge upon which new products, new production processes, and new contributions to health and welfare depend. University research satisfies a basic drive of individuals to

learn more about themselves and their universe. University research has become a standard of academic excellence.

Several studies have been conducted with the financial support of the Board of Regents in order to determine what contributions Ohio business and industry seek primarily from Ohio's universities. These studies have all come to the same set of conclusions. It is evident that business and industry in Ohio are vitally interested in the kind of higher education which is available in the state.

These interests are as follows:

1. Availability of graduate education in the vicinity of major business locations, especially of development and testing laboratories.
2. A supply of educated talent for engineering, scientific, and managerial positions.

3. Basic research activity which undergirds business and industry development and decision-making.

4. Interchange of information about business problems and university research.

5. More university concern with and assistance to business problems.

Our studies have indicated that industry in Ohio does not generally expect universities to perform developmental or testing work on behalf of industry. For the most part, Ohio industries do their own developmental work and plan to continue to do so.

With the small funds which have been made available for this purpose by the federal government under the State Technical Services Act of 1965, the Board of Regents has undertaken to encourage universities in the state to provide better communication with business and industry.

Three different kinds of activity have been undertaken to assist business and industry in Ohio. The first of these is the creation and operation of a referral service network in order that any business or industry seeking current information of a scientific or technical nature can be helped to find the material or persons of interest to it. The state has been divided into eight areas in order to provide this service, and increasing reliance will be placed upon personal contact in order to make this technical service available to business. Secondly, three technical information centers have been established specifically to provide information in construction research and technology, in the glass industry through a silicate institute, and in the machine tool industry. In the third place, seminars and conferences have been organized to provide information about construction materials and building codes, about instrumentation and controls, about research project management, about laser beam technology, about offset duplication, and machine tool design. In all these ways, higher education in Ohio is seeking to help promote improvements in business and industry products and production processes.

Higher education has always been a factor in the economic growth of the United States. What is different today is that higher education has become a more important economic factor than ever before in our national history. Moreover,

this importance is tending to increase. We may not know yet all the ways in which higher education can and does contribute to economic growth, but that a close relationship does exist is clearly evident.

If Ohio is concerned about its own participation in national economic growth—and the state is surely so concerned—then Ohio must demonstrate a substantial disposition to develop and improve its resources for higher education.

Contribution to Public Service

A major purpose of government in the United States has been to promote the general welfare. The ways and means of such promotion must be decided by the representatives of the people from time to time in the context of varying circumstances. In a variety of ways publicly sponsored universities have been asked to contribute to governmental action for the general welfare.

The most common undertakings of public universities in the area of public service include hospital service, agricultural extension, continuing education, public television, and international technical assistance. In addition, universities may be requested from time to time to make faculty members available to render public service in the many different programs which are operated by local, state, and federal governments.

Without endeavoring to consider these various areas of public service in any detail, we may note two major problems. The first problem is that of the intensified demand being made upon universities to extend the scope of their public service activities. The second problem is that of financing the expense of such activities. Both of these problems have occupied a good deal of time for consideration by the Ohio Board of Regents in the past four years.

For example, there is increasing evidence that the instructional objectives of a university cannot be fulfilled solely by the educational preparation of persons to enter a professional field of practice. Because knowledge has expanded so rapidly and because research results have far-reaching implications for professional practice, there is a growing demand for mid-career education, for an up-dating of skill and knowledge in a professional field. When instructional resources

of a university are already burdened with the pre-professional education load of numerous students, it is not easy for a university to respond to the demands for a broadened program of mid-career education.

There is the further complication of obtaining the financial resources for such mid-career education. In recent years federal government agencies have provided funds for the expense of mid-career education of teachers in such fields as the sciences, mathematics, guidance, and modern foreign languages. The federal government has shared the expense of agricultural extension service. And, of course, in the field of international technical assistance, the entire expense has been provided by the federal government. Under Title I of the Higher Education Act of 1965, the federal government has provided matching funds for certain continuing education activity. But only state and local funds are available for the operation of a teaching hospital, supplemented by such patient charges as may be collected. And no direct support has been provided for public television. In many instances short courses and special seminars for various professional personnel are supported entirely by charges to the individual participant.

The Board of Regents has administered the continuing education program under the Higher Education Act of 1965. The Board has given primary emphasis to projects for the mid-career or professional updating of state and local government officials. These projects have included cabinet officers, police officers, social workers, development officers, city attorneys, water supply and pollution control officers, tax officials, and guidance counselors.

The Board of Regents would like to see more attention and support given to public service programs, and especially to mid-career education. At the same time, these activities must necessarily be subordinated to the pre-professional education which is the primary instructional objective of higher education.

Contribution to National Security

Higher education in the past 30 years has also become a major factor in the national security of the United States. This role is performed primarily through the research activities of universities which provide the basic knowledge or background technology for weapons systems and space exploration. This effort is largely supported by the federal government, and especially by the military departments. There appears to be a widespread understanding that the appropriate role for universities is to undertake general research which may have some military application. This application, however, is usually realized through developmental work performed by industry laboratories or by government laboratories. In a few instances, although there are no such examples in Ohio, a university may contract to operate a military or military-related laboratory for the armed forces or other government agencies.

It should not be overlooked that another contribution of universities to the national security is the pre-professional education of military officers for the armed forces. All but two of the public universities in Ohio offer military instruction as a part of their curriculum. The two who do not do so are new institutions where the armed forces have not seen fit to establish such instruction. This instructional contribution is an important service on behalf of national security.

Summary

In this section we have endeavored to set forth certain aspects of the higher education function which make the whole enterprise a matter of major concern for the citizens of Ohio and of the nation. Higher education serves the American people to the extent and with the effectiveness that the citizens will themselves support. The importance of higher education to the general welfare is not widely understood, and the dependence of all citizens upon professionally educated talent is not always appreciated. Much more remains to be done to demonstrate the indispensable endeavor which higher education provides.

II. A MASTER PLAN FOR HIGHER EDUCATION

The first task of the Ohio Board of Regents was to prepare a Master Plan to guide the actions of the Board in making recommendations for legislation to the Governor and the General Assembly and in exercising such direct authority as was vested in the Board itself. Just as soon as the Board of Regents was organized in September, 1963, it began to explore means for undertaking preparation of a Master Plan. In December, arrangements were concluded whereby the Academy for Educational Development, a non-profit corporation formed by persons well known in the field of higher education, agreed to undertake a master plan survey for the Board.

The survey inquiry was performed during the first six months of 1964, and a final report with some 20 separate studies was delivered to the Board of Regents in September, 1964. The staff of the Board used the survey report and studies as the basis for preparing a master plan document which the Board itself approved and published in tentative form in April, 1965. This provisional Master Plan was given wide circulation throughout Ohio.

During September and October, 1965, the Board of Regents held hearings in Toledo, Cleveland, Cincinnati, and Columbus where representatives of public institutions and representatives of interested groups were invited to present comments and suggestions. In addition, various advisory committees set up by the Board were asked to make suggestions about revision in the preliminary plan. Altogether, comments and recommendations about the contents of the master plan were received from some 100 different organizations. The Board of Regents reviewed these various proposals with care and gave extended consideration to the preparation of a final Master Plan which was published in June, 1966.

There are two particular aspects of the Board's Master Plan which deserve emphasis. The Master Plan provides guide lines for public action affecting the operation of colleges and universities in Ohio. The Master Plan of the Board of Regents cannot be a complete blueprint for the operation of every individual college and university of Ohio,

whether publicly or privately sponsored. The Board of Regents has no such authority. The Board's task is to advise the Governor and General Assembly about legislation and appropriation matters affecting higher education and to make determinations about the chartering of community colleges and technical institutes, about the establishment of university branches and academic centers, and about the introduction of new degree programs. The role of a master plan, accordingly, is to guide the Board of Regents in advising about legislation and in making its decisions about matters entrusted to its determination.

The other important qualification which should be understood about the Master Plan is that it is not and cannot be an inflexible document. The Board believes that the Master Plan should be revised in its entirety every five years. It may well be that only parts of the document will need to be revised on such a periodic schedule, but certainly the Master Plan as a whole should be reviewed from time to time. In addition, as various circumstances change and as the work of the Board of Regents proceeds from year to year, modifications in the Master Plan may be necessary.

Before commenting about progress in the implementation of the Master Plan, we believe it may be useful to outline here the Plan's major provisions. We shall not endeavor to compare the provisions of the Master Plan survey of 1964, the preliminary Plan of 1965, or the Master Plan of 1966. It is sufficient to note that there was a substantial amount of continuity or agreement among all three documents. The Board of Regents has found the master plan concept vital to the performance of its duties.

Access to Higher Education

For over 50 years, there has been a provision of Ohio law which has stated that "a graduate of the twelfth grade shall be entitled to admission without examination to any college or university which is supported wholly or in part by the state. . . ." This statutory requirement has

been applicable to all kinds of institutions supported by the state, whether a community college, a technical institute, a municipal university, or a state university. This requirement has been interpreted, moreover, to commit the state to a policy of open access to public higher education so that every high school graduate who is a resident of Ohio should have the opportunity to enroll in an institution of higher education.

The first question which the Ohio Board of Regents had to confront was whether this provision of law should be continued or not, and whether the legal requirement of open access was being fulfilled in practice or not. The second part of this question was the easier to answer, because it became quickly evident that the law was not being fully observed and could not be made effective under existing circumstances. Extensive consultation about the first part of the question made it clear that there was no sizable group of persons in the state interested in obtaining repeal of the law.

In 1963 the State of Ohio was supporting five state universities and one state college. Two new community colleges had been organized under the 1961 legislation authorizing such institutions and were ready to get under way in temporary facilities. In addition, the state was preparing to provide support for full-time students at the lower division level (first two years) at the three municipal universities, Akron, Cincinnati, and Toledo. The five state universities had set up 33 academic centers in high school facilities on a late afternoon and evening basis, but only meager financial support had been provided by the state for this operation. These centers did have the advantage of being located for the most part in large or medium sized cities.

The problem of the five state universities and the one state college was that only one was situated in a major urban center. This, of course, was The Ohio State University in Columbus, and the mission of Ohio State was supposed to be to serve the state as a whole. The other institutions were located in small communities where practically their entire student body had to be housed in residence halls or in approved local dwellings. The academic centers were useful in extending the operations of the state institutions into urban areas, but their facilities were inadequate. The

three municipal universities were located in major urban areas but their financing had not kept pace with enrollment expansion and their ability to serve students from the adjacent suburban areas was restricted.

Finally, the establishment of a public community college in Cuyahoga County was not a final solution to what for ten years had been referred to as the "Cleveland problem." Cuyahoga County had 17 percent of the population of Ohio; the state universities had located four academic centers in the County. There was still a need to find a long-term response to the public higher education needs of the largest city, largest county, and largest metropolitan area in Ohio.

The Master Plan gave emphasis to the establishment of new or expanded public higher education facilities in the major urban areas of the state. In the largest centers of urban population, the Board recommended that new universities be created. In counties where there was a population of 100,000 to 300,000 persons, the Board proposed that community colleges or university branches be established. In addition, the objective was set of having at least a facility for a two-year program in higher education within 30 miles commuting distance of all the young people of Ohio.

There were several reasons for this emphasis upon an urban location for future higher education facilities in Ohio. Colleges and universities located in small towns must build extensive residential, recreational, health, and social facilities for students. The expense of this capital plant and of the operation of these facilities must be borne by the student, since it is the policy of the State of Ohio in general not to build facilities or support special services for students on residential campuses. The cost to the student and his family of residence on a public university campus had become the major expense item involved in enrollment at a state university as of 1963. But reduction in the expense of college attendance was not the only objective the Board of Regents had in mind. Many persons living in urban areas were interested in enrolling on a part-time basis while working in the community. There were very few public facilities to serve this group. Moreover, many studies had indicated that a larger proportion of young people will take advantage

of the opportunity for higher education if facilities are located near their home.

Some individuals did urge upon the Board of Regents that a system of selective admission to the state universities should be recommended to the General Assembly and that a system of community colleges throughout the state should be developed to provide open access to education beyond the high school. There were two principal reasons why this proposal could not be accepted. The Board found little prospect that any such recommendation would be favorably considered by the General Assembly. In addition, the Board found that many communities preferred and indeed expected higher education service from state universities rather than from community colleges.

Furthermore, there was general agreement among professional advisers on the subject that a selective admission system for college enrollment cannot be completely reliable. If there are limited resources for college education, a selective admission system can determine in nine out of ten cases those persons best qualified to complete a baccalaureate program. But there is no definite assurance that some of those rejected might not also have achieved a college degree. The only sure system for assessment of individual

ability and interest in obtaining a college degree is the actual opportunity given that individual to demonstrate by performance his capacity for college study.

In consequence, the Ohio Master Plan called for continuation of open access to public institutions of higher education, with recognition that enrollment in residential facilities at the lower division would have to be limited, and with expansion of two-year and university facilities in the major urban areas of the state. The Board of Regents has been trying to bring public higher education into harmony with the facts of an urbanized America and of an urbanized state.

Enrollment

Under a plan of open access and of urban expansion of facilities, the Board of Regents was next confronted with the problem of what enrollment growth to expect in Ohio's public institutions over the next 15 years, from 1965 to 1980. Ohio's public and private colleges and universities had experienced considerable enrollment growth in the 15 years from 1950 through 1965. This experience had been as follows, on a head-count, autumn enrollment basis:

	Public	Private	Total	% of 18-21 Year Age Group
1950	64,918	59,382	124,300	31.1
1955	72,173	59,427	131,590	32.8
1960	96,105	79,034	175,139	36.8
1965	168,405	97,958	266,363	44.3

While the private colleges and universities were increasing their enrollment by 50 percent, the public institutions had more than doubled their enrollment in this 15-year period. Moreover, the enrollment total as a proportion of the college-age group 18 through 21 years of age had expanded considerably in the 10 years between 1955 and 1965. Enrollment projections for Ohio made in 1958 and 1961 had tended to underestimate rather than to overestimate future growth.

It is not necessary here to review in detail all

the factors involved in enrollment forecasting. These factors include the size of the college-age population, the proportion of the 18 year olds who graduate from high school and go to college, the length of enrollment at both undergraduate and graduate levels of higher education, the number of part-time enrollments (especially of older or mid-career persons), and the development of programs and facilities which attract a larger number of persons into higher education.

On the basis of the survey study and staff

study, the Board of Regents made the following forecasts of total enrollment growth, on a head-count, autumn basis:

1970	410,000
1975	555,000
1980	650,000

The Board recognized that these forecasts might well be on the generous side. Moreover, some of this enrollment growth would depend upon the capacity of the privately sponsored institutions to expand. Indeed, one of the difficulties in enrollment forecasting is that of estimating the future trend in enrollments at private colleges and universities. The Board anticipated that the private institutions in Ohio might double their enrollment between 1965 and 1980, expanding from 100,000 to 200,000 students. This still would require an enrollment growth from 170,000 to 450,000 students on the part of the public institutions in this same period.

The projected enrollment totals in and of themselves do not provide a sufficient guide line for many necessary recommendations or decisions. It has been important also to anticipate how this enrollment growth might be distributed by levels of instruction (lower division, upper division, and graduate or graduate-professional), and by various campuses in various parts of the state. The Board has assumed no marked change in the distribution of enrollments by level of instruction (65 percent lower division undergraduate, 23 percent upper division undergraduate and 12 percent graduate and graduate-professional as of 1980), but the Board in its Master Plan has indicated a considerable redistribution of enrollments by campuses. In general, the big enrollment increases will have to be carried by two-year campuses and by universities in major urban areas.

Programs

The programs of higher education may be classified in various ways: by level (lower division, upper division, graduate, and graduate-professional), by type (general, arts and sciences, and professional), or by major fields of study (technical, the humanities, the social sciences, the physical sciences, the biological sciences, mathematics, teacher education, engineering, business, agriculture, art, music, architecture, medicine, law, dentistry, nursing, optometry, pharmacy,

etc.). A major concern of the Master Plan was the adequacy and quality of these various instructional programs as offered by the public institutions of higher education in Ohio.

The adequacy of instructional programs must be determined primarily in terms of the supply and demand for professionally educated personnel in the American labor market. This kind of analysis obviously has to be made for each individual field of professional education. The Master Plan of the Ohio Board of Regents undertook to review the best available data and the informed observations of consultants in order to find out what programs needed expansion at public institutions of higher education.

The Board of Regents quickly identified technical education as a program field which had been largely neglected by public higher education in Ohio. Indeed, a first step was the necessity to define technical education and to establish certain standards for its operation. Moreover, it became evident that a sharp distinction had to be made between technical education as a program and various organizational agencies which might offer a technical education program. There were some persons who seemed to think that technical education could only be provided through a technical institute. This is not so, and technical education has been introduced into the curriculum of community colleges, of community and technical colleges attached to state universities, and of university branches.

Technical education is a two-year program for the education of para-professional personnel in three different categories: engineering technologies, business technologies, and health technologies. Technical education follows after high school graduation and builds upon the high school experience. Technical education is job-oriented but at the same time it endeavors to provide the student with a back-ground for further occupational development. While one-half of the course credits in a technical education program are specifically related to a particular para-professional occupation (such as electronics manufacture or maintenance, computer programming, or nursing), one-quarter of the course credits are expected to be in general education and another one-quarter are expected to be in the basic subjects (such as physics, or statistics, or biology) related to a

particular technology. Technical education need not and should not be thought of as terminal; much and sometimes all of the course credits may be transferred to a four-year baccalaureate program.

Some persons have confused technical education with vocational education which may be provided at the high school, junior high school, or even elementary school level. Others have seemed to think of technical education as a kind of adult vocational education for the benefit of high school graduates who never had an opportunity to enroll in a vocational program while in high school. Still others have confused technical education with job-training for the person who did not complete high school.

Technical education is not vocational education; its emphasis is upon skill and general background at a higher level of competence than may be expected from a high school graduate. Technical education is not adult education; it is education for the high school graduate who has an interest in and a capacity for a particular technology. Technical education is not job-training for the high school dropout; it is a program of higher education requiring a high school education for admission.

At the undergraduate level, the Board's Master Plan pointed out the need for more graduates in the various disciplines of the arts and sciences, in teacher education, in engineering, in business administration (and especially accountancy), in home economics, in nursing, and in agricultural management. In some programs enrollment was below available capacity, as in engineering, business, and agriculture. There did not appear to be any need for additional programs in architecture, art, music, and journalism.

Among graduate-professional programs, the most urgent need was for an expansion of medical education. Some expansion was also needed in dentistry, veterinary medicine, and optometry. There were also needs for additional graduates in social work, library science, and public administration. There did not appear to be a need for any substantial number of additional graduates in law or pharmacy.

In developing its Master Plan, the Board of Regents found it necessary to give a good deal

of attention to the problem of graduate study and research, first at the master's degree level and then at the doctor's degree level. While graduate study had once been thought of primarily as involving the educational preparation of individuals to become college and university professors, this circumstance has completely changed. More and more persons with a master's or a doctor's degree are being sought for employment in business and in government. In 1966 the National Science Foundation issued a report which indicated that 38 percent of all persons registered in the National Register of Scientific and Technical Personnel were employed by industry and business, 32 percent by educational institutions, 13 percent by government, and 4 percent by non-profit research agencies and foundations; 13 percent were employed in private practice or in other arrangements. In addition, many fields of professional education—as in teacher education, business administration, engineering, agricultural science, art, music, and architecture—have extended their programs beyond the baccalaureate level to the master's or even doctor's degree level.

The Master Plan survey revealed two facts about graduate study and research in Ohio and in the public universities. The first fact was that, in terms of enrollment in relation to population, Ohio's programs lagged behind the record of such states as New York, Massachusetts, California, Michigan, Illinois, and Wisconsin. The second fact was that in terms of quality Ohio's record was not so good as that achieved by public institutions in other states, particularly other states in the Middle West.

As a result of these findings, the Master Plan gives considerable emphasis to the need to improve both the quantity and quality of graduate programs at the public universities in Ohio. Some persons suggested that this improvement effort should concentrate upon The Ohio State University and the University of Cincinnati. Others advocated that graduate study should be expanded at additional public universities where only small beginnings in this direction had thus far occurred. The Master Plan sought to encourage further development of graduate study and research at the two "comprehensive" public universities of Ohio, but at the same time also proposed expansion of graduate study and research

on a limited basis at other public universities. The criteria for this limited expansion were to be local needs, general needs, general competence, and available resources.

It is not easy to determine the quality of any educational program. Repeatedly, the Board of Regents has been told by consultants and by others that the financial support of the public institutions of higher education in Ohio had prevented the qualitative achievements which were desirable in this state. To some extent, this observation appeared to be justified. The record seemed to indicate that undergraduate education in Ohio's public institutions had been generally of good quality, thanks in large part to many able and dedicated faculty members who had served the public universities. There seemed to have been less interest in building quality achievement at the graduate level, and the financial support for graduate study and research and for graduate-professional education left something to be desired.

The Board of Regents has given a good deal of thought to the problem of how to stress the need for quality graduate study and quality graduate-professional education. The question has been asked why Ohio should not send its best students receiving the bachelor's degree to established and well-known centers of graduate study in Massachusetts, New York, Michigan, California, and elsewhere. Without doubt, some of these best students will continue to seek and obtain admission to these outstanding graduate schools in the future as they have in the past. At the same time, there are compelling reasons why the public institutions of higher education in Ohio should give much greater attention than in the past to the quality of their graduate and graduate-professional programs, and why the State of Ohio should undertake to provide the financial resources for this endeavor.

For one thing, in the increase of population and of college graduates occurring at the present time, there are many good students who cannot be accommodated at some of the best known centers of graduate study. Unless new and better graduate and graduate-professional schools are provided elsewhere, many of these students will not be able to continue their education to the level where they can make their most useful con-

tribution to society. Secondly, if Ohio depends upon other states for quality graduate study and graduate-professional education, many of these students will not return to Ohio. In the third place, unless the supply of well-educated talent is expanded, the number of such persons will be inadequate to the needs of this and of other states. The competition for top talent is already extensive and expensive. In the fourth place, much of the able talent seeking advanced education is located in Ohio in connection with present professional employment. There is a tendency for many industries to locate new and expanded activities only in communities where there is an opportunity for advanced education. In the fifth place, higher education is today a seamless fabric in which undergraduate education and graduate study are closely interwoven. Elementary and secondary education depend increasingly upon both undergraduate and graduate teacher education and university research. Two-year and four-year undergraduate programs depend upon graduate education for their staff. There is a continuing interaction of all educational levels today, and this interaction will increase in the years ahead. For Ohio to ignore the importance of graduate study and research and of graduate-professional education would be to condemn the economic, cultural, social, and intellectual future of this prosperous state to continuing decline.

Finally, the Master Plan of 1966 prepared by the Board of Regents called attention to several other problem areas. Library facilities and services were inadequate at most of the public institutions. Very little was being done to provide public support for continuing education, and especially mid-career education. The only state effort in student assistance was a loan guarantee program. The state had provided no specific support for educational television as such, and there was a good deal of confusion between instructional television on the one hand and public television on the other. There was also some question whether the state teachers retirement system established for the benefit of the public school teachers of Ohio was adequate to the needs of the public institutions of higher education. On each of these matters the Master Plan set forth certain recommendations.

Organizations and Missions

The programs of public higher education must be carried out through organizational arrangements. The Master Plan of the Board of Regents sought to provide some general standards to be observed in the expansion of the organizational arrangements for public higher education. To some extent these organizational problems have been mentioned earlier, but it may be appropriate to review the subject as a whole.

The Board of Regents did not begin its work in 1963 with a clean organizational slate. On the contrary, the Board was given the task of planning and coordinating higher education activities which already involved a large number of diverse institutions. As we have pointed out already, there were in 1963 five state universities, only one of which included a comprehensive program of graduate study, three municipal universities, only one of which had an extensive program of graduate study, one state college, two community colleges, and 33 university academic centers. There was a program of technical education operated by some 10 technical schools sponsored by local school districts and approved by the State Board of Education. The challenge to the Board of Regents in preparing a master plan was to find some organizational coherence in this array of diverse organizational entities.

The Master Plan of the Board of Regents proposed the following actions:

1. Establishment of technical institutes to operate technical education programs instead of technical schools in appropriate circumstances.

2. Establishment of additional community colleges where the population base was sufficient and where there was a local willingness to meet a part of the costs of these colleges through local taxation. These community colleges should offer technical education as well as a college transfer curriculum.

3. Establishment of university branches in communities where the population base was sufficient and where there was a local willingness to meet part of the cost of these branches through voluntary gifts or through local taxation. These university branches would offer a

two-year college program and in some instances a technical education program as well.

4. Conversion of the three municipal universities into state universities or state-affiliated universities in order to expand their opportunity for educational service.

5. Development of existing and new state universities to meet additional educational needs.

6. Continuation of academic centers on a limited scale where there were urgent local need for educational service but neither the population nor the local support base for a community college or university branch.

In devising a comprehensive organizational structure for public higher education in Ohio, the Board of Regents was confronted by several questions. One was the need for and desirability of separate technical institutes. A statute making possible the creation of technical institutes had been enacted in 1961 and extensively revised in 1963. Even so, no such organization was in existence when the Board of Regents was created. The Board took the position that in communities where other institutions of higher education, public or private, were adequate to meet the need for a college-transfer curriculum, there was a place for the technical institute.

Another organizational problem was the question whether university branches should be established or not. It was proposed that a state-wide network of community colleges should be created to provide two-year programs in technical education and in college-transfer education. It was argued that community colleges were more responsive to local needs and interests than university branches. It was implied that university branches were less interested in student counseling and guidance and in helping students to develop their capacity for college study.

There were two principal reasons why the Board of Regents was unable to take a position in favor of a comprehensive scheme of statewide community colleges as of 1965. For one thing, the state universities through their academic centers had developed close working relationships with community leaders in various cities, and these persons tended to look to the universities for the fulfillment of local educational needs. In

the second place, the Board of Regents had grave doubts about the wisdom of insisting that local communities should levy taxes on their general property for the support of a community college. The Board felt that such local support should be voluntary, not compulsory, and should not be mandated by a state agency in Columbus.

Another organizational question, whether existing state universities should be expanded on a residential basis or not, has been discussed above. The Board favored the creation of new state universities in major urban areas of the state which could be attended on a commuting basis.

Still another troublesome organizational question was the matter of the number of new public institutions of higher education which should be created in Ohio. While the Board of Regents was concerned to expand educational opportunity in Ohio, it was equally concerned to do so on a careful and economical basis. There were some small communities which wanted to establish community colleges or university branches. There were other communities which wanted to expand a university branch into a full-fledged state university with an extensive program of graduate studies. The Board decided that it was essential to have an appropriate set of standards to guide decision-making on this subject.

For one thing, the Board decided that new public institutions ought not to be set up in communities where they would compete directly with private colleges and universities serving the same community or the same section of the state. Insofar as the creation of community colleges and university branches was concerned, the Board fixed a standard of 1,000 full-time equivalent students as the enrollment needed to justify a separate plant financed by the State of Ohio. Insofar as the development of new state universities was concerned, the Board fixed a standard of 5,000 full-time equivalent students as the enrollment needed to justify a new state university. These standards in turn were related to a general population base for an area, as well as to the population of high school graduates and the experience of college enrollment among such graduates.

The Board of Regents has sought to confine its own role to that of a planning and coordinating

agency of state government in the field of higher education. The authority of government for each separate public institution of higher education has remained in the hands of the board of trustees of the institution.

The Private Colleges and Universities

Another important part of the Master Plan was concerned with the role of the state in relation to the privately sponsored colleges and universities of Ohio. As of 1965 there were 41 four-year accredited general colleges and universities located in Ohio and functioning under private sponsorship. Some of these colleges and universities had a regional or even national reputation and drew their students on a broad basis from various parts of the country. Others of these colleges and universities were primarily concerned to provide educational service to their own community or area.

Of these 41 accredited colleges and universities, 33 were related to religious denominations. Although some degree of sponsorship by a religious denomination was involved in these instances, often the amount of financial support thus provided was quite nominal.

The Board of Regents gave careful consideration to the question of the desirable relationship between the state and these privately sponsored colleges and universities. There were some persons who argued in favor of direct subsidy by the state government to the non-sectarian colleges and universities for each student enrolled from Ohio. There were some persons who argued in favor of a scholarship program which would benefit primarily Ohio residents enrolled in any private college or university. There were some persons who argued that privately sponsored colleges and universities should not receive any public support, that private colleges faced with insurmountable financial difficulties should turn their property over to the state for operation as a public institution.

In its Master Plan, the Board of Regents recommended a Tuition Equalization Grant to be given on a sliding scale based upon family income to every full-time Ohio resident enrolled in any privately sponsored, accredited college or university located in Ohio. The Board also indicated its interest in exploring the possibility of some capital improvement program which would bene-

fit the privately sponsored colleges and universities in Ohio.

Conclusion

The foregoing account should convey some sense of the scope of the Board's Master Plan for State Policy in Higher Education as completed in 1966. The Board has found in practice

that this Master Plan has been a most useful guide line in the preparation of recommendations to be given to the Governor and General Assembly of Ohio and in the determination of decisions entrusted to the Board by statutory authority. The Master Plan is by no means perfect. Experience has demonstrated its utility and its essential soundness.

III. IMPLEMENTATION OF THE MASTER PLAN

A master plan is only a piece of paper until some action is taken by the appropriate agencies of government to carry out its recommendations. The reception of the Master Plan for State Policy in Higher Education as prepared by the Ohio Board of Regents has been quite favorable. Substantial progress has been made in the actual accomplishment of most of the objectives of the Master Plan.

Expansion of Educational Opportunity

Apart from capital improvement appropriations—to be discussed below — several notable actions have been taken to expand the opportunity for higher education in Ohio. Three new state universities have been established by law, two municipal universities have been converted into state universities by law, the University of Cincinnati has been made a state-affiliated university by law, a new Medical College of Ohio at Toledo has been created by law, two new community colleges have been chartered by the Board of Regents, five technical institutes have been chartered by the Board of Regents, and the construction of 18 university branches has been authorized by the Board of Regents.

In December, 1964, a special session of the 105th General Assembly enacted legislation creating the Cleveland State University and making possible the acquisition of the property of a privately sponsored institution, Fenn College. This action brought public higher education in addition to the community college into Cleveland. The "Cleveland problem" in Ohio public higher education was finally on the road to solution. Cleveland State University opened its doors for instruction in September, 1965, and has been growing in enrollment since that date.

Also in December, 1964, the special session of the General Assembly enacted a law creating the Toledo College of Medicine. In 1967 the General Assembly amended this statute to change the name to the Medical College of Ohio at Toledo. The Ohio General Assembly in 1959 had authorized a survey study to determine the need for an additional college of medicine in Ohio beyond

the three then in existence (one in a private university, one in a state university, and one in a municipal university). The report of this survey study in December, 1962, recommended the creation of a new medical college at Toledo in conjunction with the University of Toledo, the expansion of the Ohio State University College of Medicine, and negotiations for enlargement of the College of Medicine at the University of Cincinnati. It should be noted here that all three of these 1962 recommendations have been implemented by the Ohio Board of Regents in the period from 1963 to 1967. The Board of Regents made its own further study of the need for an additional college of medicine, transmitted a special report recommending a new medical college to the Governor and the General Assembly in December, 1964, and the law setting up the Medical College of Ohio at Toledo was then enacted.

The decision was made in favor of a separate medical college because the future status of the University of Toledo was still uncertain at this time and because it seemed desirable to encourage close cooperation between the new medical college and both the University of Toledo and Bowling Green State University.

In December, 1964, a third action was taken by the General Assembly which authorized the Board of Regents to begin construction of an engineering building at Youngstown University, a privately sponsored institution not related to any particular religious denomination. The educational situation in Youngstown will be mentioned again later.

During the regular session of the 106th General Assembly in 1965 a law was enacted enabling the University of Akron and the University of Toledo to become state universities. The conversion of these two universities to state status was approved by the voters of both municipalities in May, 1966, and arrangements for the transfer of property were completed so that the two new state universities could begin operation as of July 1, 1967. This conversion was advantageous to the local communities and to the State of Ohio. The burden of local tax support was relinquished

and the institutions were enabled to serve a wider area of the state with an expanded operating income.

In 1965 the General Assembly also passed legislation which was approved by the Governor creating Wright State University. The effective date of this action was to be July 1, 1967, or the earliest date thereafter when the Board of Regents should determine that there was an enrollment of not less than 5,000 full-time equivalent students. This provision was amended by legislation enacted in 1967 which permitted the Board of Regents to make its determination one year in advance of the required enrollment and for the University to come into existence as of that time. The Board of Regents subsequently made it possible for Wright State University to be established as a separate institution as of October 1, 1967.

In 1967 the 107th General Assembly passed two further pieces of legislation of major importance. The first of these, which became effective August 15, 1967, created Youngstown State University and enabled the new state university to take over the property of the existing privately sponsored university in that city. Mahoning County is estimated as of 1967 to have a population of 320,000 people, with the seventh largest city in Ohio. The county had no provision for public higher education. The private university, which had served the community well, needed additional facilities and additional operating income in order to handle expanded enrollment and in order to provide additional instructional programs in the area. The second important piece of legislation concerned the University of Cincinnati. The University had indicated its need for additional state financial assistance but at the same time sought to continue the community support which had done so much to build up the University. After extensive discussion, the Board of Directors and the Board of Regents agreed that a new arrangement whereby the University of Cincinnati would become a state-affiliated university was desirable. The General Assembly enacted such legislation which became effective on October 13, 1967.

The new law provided that an agreement might be entered into between the Ohio Board of Regents and the Board of Directors of the Uni-

versity of Cincinnati whereby financial support by the state would be provided certain instructional units of the University. It was intended originally that such support would be extended to the graduate program, the law program, and the health professions programs of the University (nursing, pharmacy, and medicine). In turn, the University of Cincinnati would be designated a "state-affiliated" university and four of the nine members on its Board of Directors would be appointed by the Governor of Ohio. The advantage to this arrangement was that the University would receive financial support from the state for programs which were expensive and which were important to the state as a whole, while remaining a municipally sponsored institution with municipal support. Such an arrangement was much less expensive to the State of Ohio than an actual transfer to state sponsorship would have been. At the same time, the charges to students at the University of Cincinnati would be brought into line with those charged at state universities generally.

By 1967 there were four community colleges in existence. Two of these were chartered by the State Community College Board before the Board of Regents was established. The Board of Regents granted a charter on February 18, 1966, to Sinclair Community College in Dayton, and on November 18, 1966, to Lakeland Community College in Lake County. Both were operating in temporary quarters until their permanent plants could be built. Lorain County Community College, chartered in 1962, opened its permanent campus as of September, 1967. Cuyahoga Community College, chartered in 1961, was building its permanent campus in 1967 and hoped to occupy it in 1969. The Board of Regents also chartered the Mahoning Community College on May 20, 1966, but the college tax levy was not adopted by the voters of the County and so the college never came into actual existence.

As of 1967 the Board of Regents had chartered five technical institutes: the Clark County Technical Institute on February 18, 1966; the Jefferson County Technical Institute on September 16, 1966; the Stark County Technical Institute on April 15, 1966; the Columbus Technical Institute on January 20, 1967, and the Penta-County Technical Institute on February 17, 1967. Three of

these were in operation in temporary quarters in 1967-68, and the fourth was scheduled to begin operation in 1968-69. The Stark County Technical Institute had not succeeded in obtaining local tax levy support and was not in operation.

The Board of Regents by 1967-68 had approved the establishment of 18 university branches. These branches provided two-year college transfer courses in permanent facilities on both a day-time and late afternoon-evening basis. In addition, both the University of Akron and the University of Toledo had set up a Community and Technical College as part of their operation, and The Ohio State University had established a University College which would expand educational opportunity in the Franklin County area.

In all of these ways the Ohio Board of Regents had moved since its creation in 1963 to enlarge the opportunity for students at the undergraduate and graduate level to obtain the higher education they wished to receive.

Expansion of Programs

As explained earlier, the Board of Regents has been especially concerned about two broad areas of higher education activity: technical education and graduate education. Other instructional programs have not demanded the same amount of attention.

There is no intention here to suggest that the Board has ignored other fields. At various times there have been discussions of needs in nursing education, in teacher education, in legal education, in engineering education, in public administration, in social work, in library science, and in agriculture. One new baccalaureate program in nursing education was approved at Kent State University, and some planning for other undergraduate or graduate-professional programs went forward between 1963 and 1967. It is fair to say, however, that little of a specific nature had been accomplished in these various areas of instructional concern by 1967.

By 1967 considerable progress had been made in organizing and beginning technical courses of study. The four community colleges and the four technical institutes were offering curricula in the engineering technologies, business technologies, and health technologies. In addition, two university branches had begun such instruction,

and plans had been made to expand such branch activity elsewhere. Altogether, as of September, 1967, the Ohio Board of Regents had approved some 112 different curricula in technical education to be offered by community colleges, technical institutes, and university branches.

The second major preoccupation of the Board of Regents has been with graduate study and research. This concern was emphasized in the Master Plan, and the Board has moved to translate this concern into action as soon as possible. As of September, 1967, the Board had approved 31 new master's degree programs at eight different universities. In addition, it had authorized the preparation of eight new master's degree programs at Cleveland State University and had encouraged the development of master's degree programs at Youngstown State University and at Wright State University.

These master's degree programs serve several different purposes. In some fields, such as business administration and teacher education, master's degree programs are a method of mid-career education, helping to update the knowledge of the professional practitioner and assisting him to meet new professional assignments. In some instances these programs provide the additional educational experience desirable for entry into a profession. In still other instances these programs are a kind of preparation for admission to graduate study at the doctoral level. In these various ways expanded master's degree programs have been important in order to provide an additional supply of educated talent needed by business and industry, school districts, government, and higher education itself.

At the doctoral level the Board of Regents had approved 37 new degree programs at Akron, Bowling Green, Kent, Miami, Toledo, and Ohio University, as well as three new programs at The Ohio State University. These programs were intended to enlarge the opportunity for graduate study at the doctoral level and to expand the resources for such study at Ohio's public universities. Doctoral study and research are essential to business and industry, to government, and to education. In the past, doctoral study has been confined largely to The Ohio State University and the University of Cincinnati. These two universities are still expected to carry the largest

part of the instructional effort for the Doctor of Philosophy degree. At the same time, six other public universities had been emerging with facilities and staff appropriate for graduate study at the doctoral level, and they have now been given an opportunity to demonstrate their competence in this field.

At the same time, when instructional programs have been expanding, it has been necessary to give some thought also to the question of quality in instructional programs. The difficulty is that quality is an elusive characteristic or attribute which defies careful, objective measurement. We are often told that quality is a function of the amount of money devoted to the higher educational enterprise. The more funds available to support higher education, the greater the improvement in the quality of instruction. As the next section will make clear, by this standard it can be said that Ohio has advanced the quality of its instructional activity since 1963. In addition, it is widely recognized that quality depends also upon adequate and appropriate physical facilities. Here again Ohio has made substantial progress since 1963, as will be pointed out below.

But quality in higher education is more than simply a matter of capital plant and current operating support. It requires an input of able, conscientious, and dedicated faculty members who work effectively with students to transmit, evaluate, and advance knowledge in various disciplines and professional fields of study. Quality of instruction depends also upon alert, intelligent, and motivated students who are eager to master their subject matter interest and to undertake skillful practice of their profession. There are no very satisfactory methods for evaluating instructional effectiveness of faculties. Faculty members themselves are generally satisfied with the subjective evaluation of their colleagues and have contributed little in the way of procedures for determining instructional competence. There are standardized tests at both the admission level and the graduating level of undergraduate instruction which can be employed to measure student achievement. But these tests are not too satisfactory, for a variety of reasons. These tests tend to emphasize verbal skill, to assess knowledge acquired, and to indicate general learning aptitude. They do not distinguish

between learning acquired in a cultural context and learning acquired specifically in an educational context, and they do not differentiate clearly between memory capacity and reasoning capacity.

It seems that much more attention needs to be given to the whole subject of determining quality and achievement in higher education. Much of what the Board of Regents can do in this field will depend upon what is done to advance the science and art of educational measurement generally in the United States.

Operating Support

As the Board of Regents set out to encourage the establishment of new state universities and of new two-year commuter campuses, to urge specialized roles for various types of educational organizations and campuses, and to promote increased attention to undergraduate technical education and to graduate education, it was readily apparent that earlier procedures for determining state operating support levels would require revision. In the relatively less complex circumstances existing prior to 1963, the state's six institutions of higher education were supported each biennium by appropriations roughly reflective of enrollment levels and of the general character of each institution's instructional program. The four universities considered to be similar in programs offered—Bowling Green State, Kent State, Miami, and Ohio Universities—were given state operating support in a common amount per student enrolled. While such budgets generally were determined on the basis of anticipated enrollments, no adjustment of appropriations was provided in the event actual enrollments differed from those anticipated at budget-making time. In recognition of the fact that The Ohio State University was the only institution with complex graduate and graduate-professional programs, a higher per student support allowance was given to that institution. No distinction was made, however, as to just how much of the total support given to Ohio State was actually required by instructional programs of various levels. Finally, Central State College, because of its small enrollment size, was considered separately and a special support rate was established for that institution.

With the number of institutions looking to the

state for support on the increase and with the roles of various institutions becoming more diverse, the Board of Regents set out to devise operating budget formulas which would be consistent with the principles both of equity and of program differentiation. Equity required that institutions in like circumstances be treated in a like manner. Hence, institutions offering freshman and sophomore instructional programs should be supported in a like amount, regardless of whether the institution was a state university, a community college, or a university branch. Program differentiation required that state support be varied according to the several levels and various programs of instruction, in order to recognize essential differences in expenditure requirements for different levels and fields of study.

In the operating budget recommendations developed during the summer of 1964 for the biennium 1965 through 1967, only a partial application of these principles could be achieved. Insufficient time was available to the Board for carrying out necessary research into the expenditure requirements of various levels of instruction, and insufficient basic and comparable information from the various institutions was available upon which to base such research. It was possible in the 1965-1967 budget, however, to establish for the first time a common undergraduate support amount for all institutions except Central State, and to establish a common graduate level support factor for all institutions other than Ohio State. It was still necessary to make special provisions for Ohio State's graduate and graduate-professional programs, and for all of Central State's enrollments. Support factors for 1965-1967 were related directly to anticipated enrollments and subject to adjustment if enrollment expectations were not realized.

In the interim between the 1965-1967 budget-making period and that for the 1967-1969 biennium, a great deal of attention was given to improving basic data on which budget decisions could be based, upon improving formulas for expressing the principles of equity and of program differentiation, and upon determining the real needs for operating support at various instructional levels and in various fields of study.

A great deal of progress was made in understanding expenditure needs of various levels of instruction, and it was possible in the budget for

the biennium 1967-1969 to express all basic support needs which were related to student enrollments in terms of standard budget models. For each of seven basic levels and fields of instruction, standard expenditure needs of various kinds were calculated, and the proportion of total income which would need to come from state appropriations was determined. Appropriation recommendations proposed by the Board of Regents for the 1967-1969 biennium were determined by applying these standard state support factors to each institution's enrollment expectations within each of the seven basic enrollment categories.

The seven standard categories of instruction within which standard expenditure needs and standard state support factors were developed were:

1. **Lower Division:** Technical Education, General Education, Arts and Sciences, Teacher Education, Business Administration
2. **Upper Division:** Arts and Sciences, Teacher Education, Business Administration
3. **Professional-Baccalaureate Fields:** Agriculture, Architecture, Art, Engineering, Home Economics, Journalism, Library Science, Music, Nursing, Social Work, Dental Hygiene, and Allied Medical Services
4. **Master's Degree Level**
5. **Graduate-Professional Fields:** Law, Dentistry, and Pharmacy
6. **Doctor of Philosophy Level**
7. **Medical Programs:** Medicine, Veterinary Medicine, and Optometry

In addition to improving the methodology of determining various support factors, and as a further result of the careful study of expenditure needs of various levels of instruction, the Board of Regents also was convinced that the overall levels at which the State of Ohio had supported its universities needed to be substantially raised. As shown in Table 3, Ohio's expenditures, both in total dollar amount and in relationship to the number of students served by its state universities, have been modest by comparison with those of other states of similar size and economic structure.

Substantial gains in state support per student enrolled were clearly necessary if Ohio's state-

Table 3

**Appropriations from Tax Funds
For Current Operating Expenditures of
State Universities and Colleges**

	Total Amount	Actual 1966-67 FTE Enrollment	Amount Per FTE
Big Ten States			
Michigan	\$193,856,000	137,681	\$1,408
Indiana	104,152,000	83,559	1,246
Illinois	186,941,000	102,153	1,830
Wisconsin	95,160,000	86,722	1,097
Minnesota	68,061,527	75,283	904
Iowa	59,178,000	39,848	1,485
Ohio	88,154,000	106,681	826
Other			
New York	\$214,729,000	143,809	1,493
California	416,647,000	237,915	1,751

NOTE: Data include appropriations for teaching hospitals, agricultural research, and cooperative extension. Data do not include any appropriations for a state scholarship program for higher education students. Michigan, Indiana, Illinois, Wisconsin, New York, and California have such scholarship or tuition grant programs. Nor do data include appropriations to junior colleges or other public institutions receiving partial support from the state. Enrollment data are from *School and Society*, Vol. 95, No. 2285, January 7, 1967. Appropriation data are from *Grapevine*, various issues, by M. M. Chambers.

assisted universities were to be competitive in building strong faculties and in carrying forward the expanded and improved services called for in the Master Plan for State Policy in Higher Education. In order both to carry out this real increase

in "per student" state support and to express the revised methodology for relating support needs to enrollment expectations at various levels and in various fields of study, support rates as follows were developed for the biennium 1967-1969:

	Proposed Support Per Student
Academic Centers	\$ 250
Community Colleges, Technical Institutes, University Branches, Lower Division of State Universities and the University of Cincinnati	350
Upper Division of State Universities	1,000
Professional Programs, Baccalaureate Level, State Univer- sities and Nursing at the University of Cincinnati	1,000
(agriculture, architecture, art, engineering, home eco- nomics, journalism, library science, music, nursing, social work, allied medical services)	
Master's Degree Programs, State Universities and the Uni- versity of Cincinnati	1,500
Graduate-Professional Programs, State Universities and the University of Cincinnati	1,500
(dentistry, law, pharmacy)	
Doctoral Degree Programs, State Universities and the Uni- versity of Cincinnati	4,800
Medical Programs, State Universities and the University of Cincinnati	4,800
(medicine, optometry, veterinary medicine)	

The proposed biennial budget recommended by the Board of Regents for the period 1967-1969 incorporated the proposed new support rates and also made provision for the greatly expanded system of institutions described earlier. Whereas during the last year of the 1965-1967 biennium Ohio's state-assisted institutions had enrolled a

total of 150,000 full-time equivalent students, the expanded system to be supported during the two-year period 1967-1969 would enroll 191,000 and 217,000 students. Necessarily, the total support proposed for the 1967-1969 biennium for all of the programs of higher education was dramatically higher than in earlier periods.

	Annual Appropriation	Biennial Total	Proposed Increase
Previous Biennium			
1965-66	\$ 84,864,100		
1966-67	93,100,330	\$177,964,430	
Proposed for Next Biennium			
1967-68	\$160,457,000		
1968-69	177,534,500	337,991,500	\$160,027,070

Following extended consideration during the 107th General Assembly, and the fashioning of a landmark supplementary appropriation measure for an advance in support for all levels of educa-

tion in Ohio, the budget as proposed by the Board of Regents was substantially underwritten. Some adjustment in support rates was required in the first year of the biennium because of the timing

of revenue collections inherent in supporting tax legislation, the schedule for establishing the University of Cincinnati as a state-affiliated university was altered somewhat, and a proposal for initiating a tuition equalization program for students enrolled in private colleges was removed from the budget. In all other respects, however, the proposed budget was approved and constituted a dramatic breakthrough in operating support for

Ohio's state-assisted colleges and universities. A total of \$325 million was appropriated for support of higher education, constituting an increase of nearly \$147 million over the previous biennium.

The extent of new support for state-assisted higher education approved for the 1967-1969 biennium is striking when compared with earlier budget periods.

**State Appropriations
State-Assisted Higher Education
1951-1969**

Biennium	State Appropriations	Increase from Previous Biennium	
1951-1953	\$ 49,600,000	\$ 10,200,000	26%
1953-1955	55,500,000	5,900,000	12%
1955-1957	56,000,000	500,000	1%
1957-1959	74,400,000	18,400,000	33%
1959-1961	90,800,000	16,400,000	22%
1961-1963	105,700,000	14,900,000	16%
1963-1965	126,700,000	21,000,000	20%
1965-1967	178,000,000	51,300,000	40%
1967-1969	324,800,000	146,800,000	82%

While much of the increased support funds was required by institutions newly brought into the state system of higher education and by enrollment growth at all institutions, real gains in "per student" support were also made. Chart 1 plots the support rates per student received by the six long-established state-assisted universities over several biennial periods, and clearly illustrates the gains made for 1967-1969. This chart records a composite of support received by Bowling Green State University, Central State University, Kent State University, Miami University, The Ohio State University, and Ohio University.

Capital Improvements

One of the first tasks of the Board of Regents upon its formation in 1963, and one of its very important continuing assignments in the four years since that time, has been the planning and the general supervision of massive new state in-

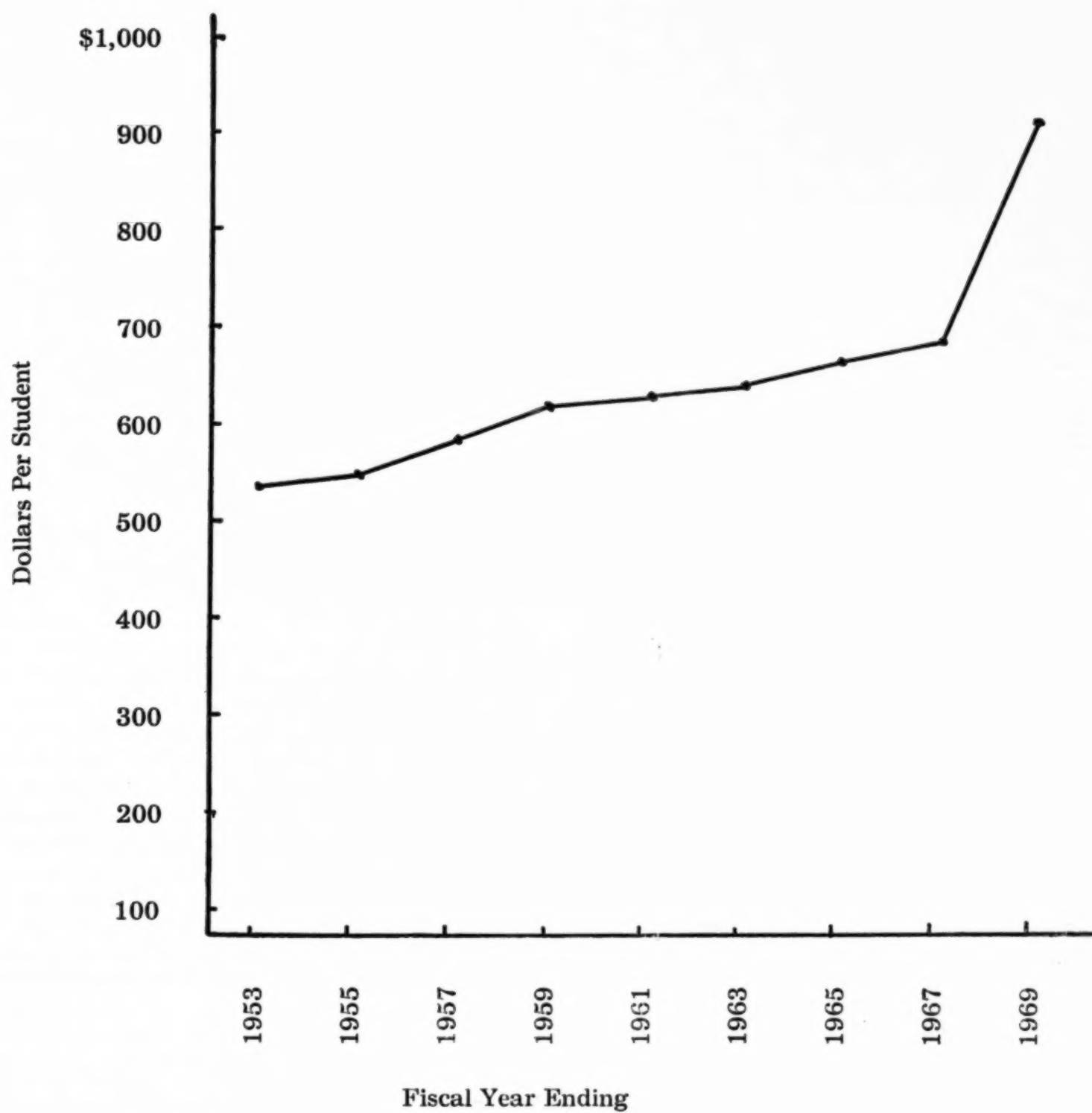
vestments in higher education physical facilities. Immediately after the Board's establishment, a major capital improvements bond issue was placed on the state-wide ballot in November of 1963. This bond proposal, among other provisions, made \$175 million available for capital improvements at state-assisted institutions of higher education.

Voter approval of this capital development proposal permitted the beginning of the greatest period of physical expansion ever to take place in the field of higher education in the State of Ohio. Subsequently, in 1965 a continuation of this physical plant expansion was made possible by a second state-wide bond issue which earmarked an additional \$145 million for higher education construction programs. Together, these two bond issues made possible a capital improvements program for 1963-1967 unequalled elsewhere in the United States.

These funds, totaling \$320 million, have been

Chart 1

State Support Per Full-Time
Equivalent Student
Six-Institution Composite
1953-1969



used to expand the capacities of long-existing state colleges and universities, to undertake expansion of new state universities now coming into being or entering the state-assisted system for the first time, to finance the first stage of a new medical college at Toledo, to enlarge facilities of the Ohio State University Medical Center and of the Agricultural Research and Development Center, and to

establish some 30 two-year campuses throughout Ohio of community colleges, technical institutes, university branches, and community and technical colleges of urban-based senior universities.

As is shown in detail in Table 4, bond issue funds have been allocated in such a way to emphasize various expansion goals established in the Master Plan:

	Percent of Total Funds
Expanding Central Campuses of Long-Established State-Assisted Universities	35
Expanding or Constructing Main Campuses of New State-Assisted Universities	27
Constructing Two-Year Campuses	28
Expanding Medical Facilities	8
Other Programs	2
	100

This expansion program, in addition to making possible substantial expansion of graduate level programs on the central campuses of the senior universities, has increased overall student enrollment capacities sufficiently to serve enrollment growth through the year 1970. In addition, the goal of the Master Plan to place two-year centers of higher education within commuting distance of the homes of all Ohio young people has been substantially achieved. Further expansion of facilities to accommodate enrollment growth during the 1970-1975 period will need to be undertaken in the very near future, and a proposal to that effect has been prepared by the Board of Regents and presented to the Governor and to the General Assembly.

Coordination

Coordination is an administrative process which seeks to avoid conflict among agencies with common interests or concerns and to promote harmonious action in the realization of common purposes. In the field of public higher education in Ohio, there are many different colleges and universities with a potentiality of conflict and with

a common concern to realize their appropriate educational objectives.

The coordinating authority of the Ohio Board of Regents is limited, since coordination usually must be accomplished by participation in the management of an enterprise. The Board of Regents has no general authority to issue orders or instructions to the boards of trustees of community colleges, technical institutes, or state universities. The Board of Regents must attempt to obtain harmonious action primarily through its planning activities and through advice on desirable legislation affecting public higher education. The Board's direct coordinating authority is restricted to approval of new degree programs and to approval of new two-year institutions. Efforts at coordination must be accomplished through law, through rules or decisions issued in carrying out provisions of appropriation laws, and through studies which may be undertaken from time to time.

In the first four years of its existence, the Board of Regents has necessarily had to give primary attention to its planning duties and to

Table 4
Allocation of Construction Funds for
Higher Education Expansion
Bond Issues of 1963 and 1965

**Expanding Central Campuses of Long-Established
State-Assisted Universities**

Bowling Green State University	\$14,500,000
Central State University	5,500,000
Kent State University	19,500,000
Miami University	14,500,000
Ohio State University	44,200,710
Ohio University	18,000,000

Total	\$116,200,710
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**Expanding or Constructing Main Campuses of
New State-Assisted Universities**

University of Akron	\$ 6,000,000
Cleveland State University	44,750,000
University of Cincinnati	21,831,074
University of Toledo	6,000,000
Wright State University	9,000,000
Youngstown State University	5,000,000

Total	\$ 92,581,074
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Constructing Two-Year Campuses

Community Colleges:

Cuyahoga Community College	\$14,021,054
Lakeland Community College	2,250,000
Lorain County Community College	6,468,922
Sinclair Community College	2,000,000

Sub-Total	\$24,739,976
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Technical Institutes:

Clark County Technical Institute	\$ 2,000,000
Columbus Technical Institute	3,200,000
Jefferson County Technical Institute	1,800,000

Sub-Total	\$ 7,000,000
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University Branches:

Firelands Branch—BGSU	\$ 1,875,000
Walters Branch—UC	2,168,926
Ashtabula Branch—KSU	1,925,000
Canton Branch—KSU	2,450,000
Columbiana County Branch—KSU	20,000
Tuscarawas Branch—KSU	1,875,000
Trumbull & Columbiana Branches—KSU	2,071,896

Hamilton Branch—MU	2,025,000
Middletown Branch—MU	2,422,440
Lima Branch—OSU	3,947,550
Mansfield Branch—OSU	4,259,750
Marion Branch—OSU	1,952,857
Newark Branch—OSU	1,992,203
Portsmouth Branch—OU	2,075,000
Chillicothe Branch—OU	2,158,404
Zanesville Branch—OU	2,170,900
Belmont County Branch—OU	2,150,285
Lancaster Branch—OU	1,875,000

Sub-Total \$39,415,211

Two-Year Urban Campuses of Senior Universities:

University of Akron Community and Technical College	\$ 6,000,000
Ohio State University University College	9,500,000
University of Toledo Community and Technical College	6,000,000

Sub-Total \$21,500,000

Total \$ 92,655,187

Expanding Medical Facilities

Toledo State College of Medicine	\$ 7,500,000
Ohio State University Medical Center	19,869,290

Total 27,369,290

Other Programs

Ohio Agricultural Research and Development Center	\$ 6,085,000
Ohio Board of Regents Master Planning	339,542

Total \$ 6,424,542

Grand Total \$335,230,803

Less Recoveries under Section 103, Title I, Higher Education Facilities Act during 1966, 1967, 1968	15,230,803
Allocated to Higher Education from 1963 and 1965 Bond Issues	<u>\$320,000,000</u>

its role as a legislative advisor. In general, coordination of the various programs of public institutions of higher education has been sought by these means. In the future, it is possible that more attention will and should be given to problems which do require some degree of coordinated action by the public colleges and universities in Ohio.

There are a number of areas of higher education operation where common action may be desirable. These would include delineation of geographical areas served, elimination of duplication in academic programs, development of common admission procedures, articulation of two-year programs with baccalaureate programs, sharing of library resources, sharing of specialized instructional and research facilities, coordinated academic planning, and sharing of specialized computer facilities. Such a listing is by no means complete but only illustrative of the kinds of problems which deserve some attention.

In exercising its authority to grant charters to community colleges and technical institutes and to approve university branches and academic centers, the Board of Regents has been much concerned about the geographical distribution of such facilities throughout Ohio. As a matter of policy, the Board has endeavored to avoid competition with available programs already provided by existing public and private institutions of higher education. Thus, a technical institute district was favored in both Clark County and Jefferson County in preference to a community college because of the existence of private colleges in both counties. The Board of Regents in 1966 disapproved the chartering of a community college in Columbiana County because there was conflict between groups of citizens in the area, many of whom preferred a university branch. The Board decided that the needs of the area could better be served under the circumstances by development of a university branch in the County. The Board did grant a charter in 1966 to the Mahoning Community College in spite of the fact that the possibility of establishing a state university in Youngstown was under consideration. The voters of the County disapproved a tax levy in support of the college, probably because they believed that a state university would adequately meet the needs of the geographical area.

The Board of Regents had planned that the geographical distribution of higher education facilities could be adequately provided through university branches, but the Board found in practice that there was considerable local pressure for retention of certain academic centers where the area population was not large enough to justify full-time facilities. The Board even approved the creation of a new academic center in the Adams-Brown-Highland counties area in order to provide some opportunity for higher education where the population base was sparse.

One of the geographical problems has been the assignment of supervision over two-year institutions. Originally, university academic centers were developed in Ohio primarily according to a regional assignment for each of the five state universities. With the expansion of the system to 12 universities, the question has arisen whether there should be some geographical redistribution of supervisory jurisdiction over state university branches. Certainly, in a coordinated state system of higher education, a strong case can be made for a rational assignment of geographical duties. But reorganization of this kind is not easy to carry out in the name of achieving a coordinated structure. There are many local attachments and experiences to consider before undertaking a redistribution of branch supervision.

It is not a simple matter to define what constitutes duplication of academic programs. It is easy to assert that duplication is uneconomical and undesirable. It is something else to determine the existence of duplication. The fact that several institutions of higher education offer the same academic programs does not in itself prove duplication of academic effort. For example, all state universities offer programs in teacher education. This is necessary, since the demand for teachers is great and since the number of students seeking a degree in teacher education is sizable. The same observation can be made about a number of other academic programs at the two-year, the baccalaureate, and the graduate levels.

The test of uneconomical and undesirable duplication is whether a number of institutions are offering the same academic program for which there may be a limited professional demand, a limited number of students to be enrolled, and the need for highly specialized and expensive facili-

ties. In approving new academic programs, the Board of Regents has kept this standard in mind, and in the future the Board hopes to look at existing programs in terms of this same standard.

In its legislative program, the Board of Regents has sought particularly to provide common authority of management for public institutions of higher education and to strengthen the management authority of these institutions. For example, the Board of Regents in 1967 recommended legislation which was enacted by the General Assembly declaring every state university a body politic and corporate. Such language had been used in the original acts establishing Ohio University and Miami University, but had been omitted in the laws creating The Ohio State University and other universities. In addition, the Board of Regents recommended legislation which was enacted by the General Assembly conferring the same borrowing authority upon community colleges and technical institutes as that already given to state universities.

In 1965 the Board of Regents recommended legislation which was enacted by the General Assembly enabling each state university to retain in the hands of the university treasurer all student fees charged and collected by the university rather than having to deposit these fees with the Treasurer of State. There were several advantages to this change in financial practice, both for the State of Ohio and for the state universities. The fees had been earmarked by state law to be used only for the benefit of the collecting university, and all fees were automatically reappropriated to the universities. By eliminating the deposit of these fees with the Treasurer of State, a great deal of paper work was eliminated and a clearer record of the actual support from tax funds to public higher education resulted. At the same time, this legislation greatly augmented the management autonomy of the state universities in Ohio.

One result of the fiscal legislation affecting state universities was the development and adoption of a standard program of accounting and financial reporting for the public institutions of higher education in Ohio. The *Uniform Manual of Accounts and Financial Reports* for state-assisted institutions was prepared by the Auditor of State. The Board of Regents cooperated in the

preparation of this manual. The result should be a standard practice in maintaining the accounting records of colleges and universities in Ohio and in reporting their financial transactions.

A major concern of the Board of Regents has been the development of a standard information system for public higher education in Ohio. This information system is divided into four major parts: student enrollment and characteristics, staffing (academic, non-academic, and administrative), space inventory and utilization, and financial operations. In each area, standard definitions and standard reporting procedures are expected to provide comparable data about each state-assisted institution of higher education. The data submitted by each institution is being processed in Columbus and periodic reports will be published making these data available for analysis by the staff of the Board of Regents, as well as by the staffs of the public colleges and universities.

The Board's standard information system was originally devised by a management consulting firm retained for this purpose. The systems design for processing the data obtained by the Board was undertaken by another consulting firm. The programming and processing of the data have been performed by the data processing section of the Department of Finance.

The Board of Regents has believed that a system of management information is essential to the coordination of the various public institutions of higher education. Such information is the basis for determining the experience of each institution in the management and utilization of various resources. In addition, the information system is expected to provide cost experience data for each institution on a program basis. This expense information is required in the performance of the Board's budgetary functions.

In 1967 the General Assembly provided a special appropriation to the Board of Regents for research and public service. This appropriation will be used to enable The Ohio State University to undertake certain services for the benefit of all public institutions. These services will include a teacher education improvement program, a business review service, an undergraduate instruction service, development of a high energy

physics program, operation of a hydrobiological research center, development of a central library service, and development of plans for a central computer service. In all of these fields the interests of the state universities will be coordinated on behalf of the Board of Regents by Ohio State.

Some exploration has been started looking toward coordination of admission policies and procedures. There appears to be a need to avoid duplication in payment of admission application fees to the various public institutions. Little attention has yet been given to articulation of two-year with four-year undergraduate curricula.

Another kind of coordination has been performed in connection with appropriation legislation. In preparing its capital improvement recommendations and in reviewing the facilities planning of each institution, the Board of Regents has found it necessary to have a set of standard space requirements and standards of expected space utilization. Such standards have been incorporated in the capital improvement budgets and in the plans recommended by the Board for construction. The Department of Public Works has been most cooperative in enforcing these standards. In addition, the Board in 1964-65 prepared standard specifications to be used in the construction of university branches. It has been estimated that as much as an additional \$5 million became avail-

able for branch construction through savings achieved in this manner.

In 1963 the General Assembly began the practice of delegating to the Board of Regents authority to define full-time equivalent students upon which operating appropriations are based. This authority was repeated in 1965 and 1967. In this way a coordinated definition of enrollment has been realized.

In establishing a year-round counting of enrollment for appropriation purposes, the Board of Regents became aware of a special complication since the public universities utilized three different academic calendars: semester, trimester, and quarter. This absence of common calendar arrangements could and did result in inequities in appropriation support. It also was evident that the coordination of enrollment loads among branches and universities would be facilitated through a common calendar. In consequence, in 1966 the Board of Regents announced that, beginning in September, 1968, the Board would define year-round enrollment only upon the basis of a quarter calendar.

This summary of the coordination activities of the Board of Regents indicates the kinds of concerns which have occupied the Board's attention. It seems probable that these concerns will become more extensive in the future.

IV. RELATIONS WITH GOVERNOR AND GENERAL ASSEMBLY

The Ohio Board of Regents is not an institution of higher education. The Board of Regents seeks to provide a professional and a considered judgment as advice to the Governor and the General Assembly of Ohio on desirable public policy in the field of higher education.

The basic and important decisions about higher education are not made by the Board of Regents. The vital decisions are made by the Governor in his budget and legislative recommendations to the General Assembly and by the General Assembly in its action upon appropriations and other measures considered by it. Necessarily, these decisions are political in nature, political in terms of their concept of the public welfare to be promoted and in their interpretation of what the citizenry of Ohio needs and wants.

Necessarily, in the formulation and determination of public policy affecting higher education, there must be an interplay between professional and board judgment on the one hand and political judgment on the other hand. This interplay can be formal or informal, cooperative or suspicious, effective or ineffective.

The Board of Regents has had the unfailing support of Governor James A. Rhodes during its four years of activity, as well as the fullest possible assistance from the Department of Finance and other executive officers. The leadership and the committees of the General Assembly have given careful and sympathetic consideration to the recommendations of the Board of Regents. Without this continuing cooperation, the Board of Regents might well be reporting a very different record of accomplishment.

Indeed, the accomplishments in legislation advancing the best interests of public higher education in Ohio are not accomplishments of the Board of Regents. They are accomplishments of the political leadership of the State of Ohio.

The Ohio Board of Regents has sought to provide through various public documents informa-

tion to the Governor and the General Assembly and to others about the work and the needs of public higher education in Ohio. The publication of a provisional Master Plan in April, 1965, and of the Master Plan in June, 1966, has already been mentioned. The Board has published three annual reports, a summary of the Master Plan entitled *New Responses to Vital Issues in Public Higher Education* (1966), a pamphlet entitled *Higher Education and Jobs* (1966), a pamphlet on higher education developments (1967), current operating budget recommendations in 1965 and 1967, and capital improvement programs in 1965 and 1967.

The Board of Regents believes that it has provided more extensive information about public higher education in Ohio than has ever been available before. The Board has sought to make public all information it has had about the institutions of higher education in Ohio. It has been Board policy to encourage interested groups to learn all they are willing to absorb about the service and the problems of public higher education.

Higher education has never been organized and has never sought to operate as a pressure group. In terms of an interested constituency — faculty, staff, students, and alumni — higher education may well reach only a small proportion of the citizens of any state. The impact of higher education upon the economy and upon the welfare of society is quite disproportionate to the direct numbers involved. The benefits of higher education are enjoyed far beyond the numbers of students who graduate.

The responsibility of the university graduate in his professional work is to bring knowledge and skill to the service of others. This the graduates of higher education have done, generally without any limitations imposed upon their efforts. It is the public benefit from higher education which constitutes higher education's claim to public support.

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APPENDIX A

Table 1
Student Enrollments
Autumn 1966 Head Counts
State-Assisted Institutions of Higher Education

	Main Campus	Branches and Academic Centers	Total
University of Akron	11,865		11,865
Bowling Green State University	11,304	1,274	12,578
Central State University	2,211	108	2,319
Cleveland State University	6,954	933	7,887
University of Cincinnati	24,584		24,584
Kent State University	17,225	5,691	22,916
Miami University	10,620	2,720	13,340
Ohio State University	37,270	3,937	41,207
Ohio University	15,088	4,236	19,324
University of Toledo	11,493		11,493
Wright State Campus	4,694		4,694
Cuyahoga Community College	10,239		10,239
Lorain County Community College	2,750		2,750
Sinclair Community College	2,122		2,122
Totals	168,419	18,899	187,318

Table 2
Student Enrollments
Full-Time Equivalents Eligible for Subsidy Support,
Academic Year 1966-67
State-Assisted Institutions of Higher Education

	Main Campus	Branches and Academic Centers	Total
University of Akron	4,748*		4,748
Bowling Green State University	12,353	778	13,131
Central State University	2,419	30	2,449
Cleveland State University	5,526	649	6,175
University of Cincinnati	8,393*		8,393
Kent State University	18,217	2,910	21,127
Miami University	11,969	1,091	13,060
Ohio State University	41,161	2,781	43,942
Ohio University	16,135	2,849	18,984
University of Toledo	5,275*		5,275
Wright State Campus	3,208		3,208
Cuyahoga Community College	6,075		6,075
Lorain County Community College	1,983		1,983
Sinclair Community College	1,006		1,006
Totals	138,468	11,088	149,556

*lower division only

APPENDIX B

Table 3

Summary of Total Operating Income and Expenditures State Universities, Academic Year 1966-67

	BGSU	Central	Clev.	Kent	Miami U.	O.S.U.	Ohio U.	Wright State
Total Operating Income								
Curr. Gen. Inc.	15,158,261	3,236,591	6,525,855	23,714,924	15,230,552	75,588,247	21,508,375	3,385,427
Per Cent	59.5	61.0	87.5	69.1	65.1	53.2	63.6	99.9
Research	223,131	15,304	-0-	586,441	185,133	17,634,699	442,511	
Per Cent	.9	.3	-0-	1.7	.8	12.4	1.3	
Public Services	921,636	131,614	5,743	1,100,222	267,791	27,151,060	3,192,047	
Per Cent	3.6	2.5	.1	3.2	1.2	19.1	9.4	
Auxiliary Enterprises	9,178,825	1,790,044	784,552	8,557,579	7,539,953	16,922,109	8,042,268	2,456
Per Cent	36.0	33.8	10.5	24.9	32.2	11.9	23.8	.1
Student Aid	-0-	129,936	138,246	368,429	164,787	4,807,510	638,051	
Per Cent		2.4	1.9	1.1	.7	3.4	1.9	
Total	25,481,853	5,303,489	7,454,396	34,327,595	23,388,216	142,103,625	33,823,252	3,387,883
Total Operating Expend.								
Instruction & Gen.	13,784,990	3,115,842	6,137,738	21,461,416	13,131,432	69,969,033	22,277,566	3,204,177
Per Cent	55.6	64.5	84.8	65.5	62.7	49.7	64.7	98.4
Research	290,923	29,945	-0-	641,534	215,764	20,353,627	610,184	
Per Cent	1.2	.6	-0-	2.0	1.0	14.5	1.8	
Public Service	876,048	133,061		1,256,338	311,208	27,309,943	3,428,572	
Per Cent	3.5	2.8		3.8	1.5	19.4	9.9	
Auxiliary Enterprises	9,524,452	1,340,439	931,459	8,672,741	6,742,038	15,558,798	6,998,681	25,426
Per Cent	38.4	27.7	12.9	26.5	32.2	11.1	20.3	.8
Student Aid	333,695	214,592	165,413	743,947	559,030	7,495,686	1,120,585	27,456
Per Cent	1.3	4.4	2.3	2.2	2.6	5.3	3.3	.8
Total	24,810,108	4,833,879	7,234,610	32,775,976	20,959,472	140,687,092	34,435,588	3,257,059

APPENDIX B

Table 4

Summary of Total Operating Income and Expenditures Municipal Universities and Community Colleges, Academic Year 1966-67

	U. of Akron	U. of Cin.	U. of Toledo	Cuyahoga Comm. Coll.	Lorain Co. Comm. Coll.
Total Operating Income					
Current General Income	8,702,861	25,517,035	10,127,718	5,450,116	1,859,902
Per Cent	75.9	49.6	82.1	89.9	90.0
Research	358,519	6,242,250	-0-	-0-	-0-
Per Cent	3.1	12.2			
Public Service	111,358	11,442,168	143,553	40,178	
Per Cent	1.0	22.3	1.2	.7	
Auxiliary Enterprises	1,952,827	7,625,978	2,067,294	503,851	164,383
Per Cent	17.0	14.8	16.7	8.3	8.0
Student Aid	336,768	584,120	-0-	69,901	40,760
Per Cent	3.0	1.1		1.1	2.0
Total	11,462,333	51,411,551	12,338,565	6,064,046	2,065,045
Total Operating Expenditures					
Instruction and General	7,720,753	24,362,548	9,383,697	5,390,560	1,820,221
Per Cent	75.2	47.5	79.5	89.1	90.7
Research	358,519	6,693,141	-0-		
Per Cent	3.5	13.1			
Public Services	135,729	10,804,759	190,168	67,869	
Per Cent	1.3	21.1	1.6	1.1	
Auxiliary Enterprises	1,749,603	7,332,610	1,964,334	511,322	152,588
Per Cent	17.0	14.3	16.6	8.5	7.6
Student Aid	304,246	2,023,677	272,981	77,896	34,573
Per Cent	3.0	4.0	2.3	1.3	1.7
Total	10,268,850	51,216,735	11,811,180	6,047,647	2,007,382

APPENDIX B

Table 5

Summary of Current General Income State Universities, Academic Year 1966-67

	BGSU	Central	Clev.	Kent	Miami U.	O.S.U.	Ohio U.	Wright State
Gov't Appropriations								
State Campus	6,595,250	1,900,158	2,900,001	9,693,500	6,440,545	36,537,485	8,800,000	1,620,100
Branch	155,600	6,000	129,799	695,000	326,200	742,800	616,000	
Total State Apprpr.	6,750,850	1,906,158	3,029,800	10,388,500	6,766,745	37,280,285	9,416,000	1,620,100
Per Cent	44.6	58.9	46.4	43.8	44.4	49.3	43.8	47.9
Student Fees								
Campus: Instr. & Gen.	5,906,324	666,618	1,369,803	7,541,636	4,621,635	16,100,088	5,827,558	1,670,983
Tuition (out-of-state)	488,285	236,345	78,353	1,030,178	1,069,016	2,891,368	1,269,017	12,129
Student Services	593,315	322,238	1,229,443	1,139,229	1,509,353	2,207,300	2,068,861	40,666
Subtotal	6,987,924	1,225,201	2,677,599	9,711,043	7,200,004	21,198,756	9,165,436	1,723,778
Per Cent	46.1	37.8	41.0	40.9	47.3	28.1	42.6	50.9
Branch: Instr. & Gen.	429,761	5,913	145,078	2,245,831	684,932	1,328,736	1,549,709	
Tuition (out-of-state)				4,915	4,352	13,391		
Student Services		5,913	130,214	42,000		35,510	103,507	
Subtotal	429,761		275,292	2,292,746	689,284	1,377,637	1,653,216	
Per Cent	2.8	.2	4.2	9.7	4.5	1.8	7.7	
Total Student Fees	7,417,685	1,231,114	2,952,891	12,003,789	7,889,288	22,576,393	10,818,652	1,723,778
Per Cent	48.9	38.0	45.2	50.6	51.8	29.9	50.3	50.9
Endowment Income					7,778	68,334	44,959	
Per Cent					.1	.1	.2	
Private Gifts and Grants	5,100		49,631	200	67,000	857,357	120,117	
Per Cent			.8		.4	1.1	.5	
Government Grants	240,609		17,165	84,097	139,424	3,408,639	699,470	
Per Cent	1.6		.3	.4	.9	4.5	3.3	
Departmental Sales	154,463	11,591	165,630	258,461	21,581	7,879,165	6,988	
Per Cent	1.0	.4	2.5	1.1	.2	10.4	-	
Other	589,554	87,728	310,738	979,877	338,736	3,518,074	402,189	41,549
Per Cent	3.9	2.7	4.8	4.1	2.2	4.7	1.9	1.2
Total Curr. Gen. Income	15,158,261	3,236,591	6,525,875	23,714,924	15,230,552	75,588,247	21,508,375	3,385,427

APPENDIX B
Table 6

Summary of Current General Income
Municipal Universities and Community Colleges, Academic Year 1966-67

	U. of Akron	U. of Cin.	U. of Toledo	Cuyahoga Comm. Coll.	Lorain Co. Comm. Coll.
Government Appropriations					
State	914,700	1,641,800	1,026,700	1,058,484	396,600
Per Cent	10.5	6.4	10.1	19.4	21.3
Local	1,596,911	3,838,586	2,372,541	2,436,415	589,445
	18.4	15.1	23.5	44.7	31.7
Total Government Appropr.	2,511,611	5,480,386	3,399,241	3,494,899	986,045
Per Cent	28.9	21.5	33.6	64.1	53.0
Student Fees:					
Instruction and General	5,138,151	12,303,956	4,557,612	1,710,028	663,242
Tuition (Out of County)	53,691	389,271	1,325,253	137,800	6,132
Student Services	343,937	268,062	508,351	-0-	29,164
Total Student Fees	5,535,809	12,961,289	6,391,216	1,847,828	698,538
Per Cent	63.6	50.8	63.1	33.9	37.6
Endowment Income	9,913	1,542,983			
Per Cent	.1	6.0			7,477
Private Gifts and Grants	330,437	1,582,787			.4
Per Cent	3.8	6.2			134,528
Government Grants	55,932	2,965,667	74,024	56,348	7.2
Per Cent	.6	11.6	.7	1.0	3,453
Departmental Sales		143,802			.2
Per Cent		.6			29,861
Other	259,159	840,121	263,237	51,041	1.6
Per Cent	3.0	3.3	2.6	1.0	
Total Current General Income	8,702,861	25,517,035	10,127,718	5,450,116	1,859,902

APPENDIX B

Table 7

Allocation of Current General Income State Universities, Academic Year 1966-67

	BGSU	Central	Clev.	Kent	Miami U.	O.S.U.	Ohio U.	Wright State
Available for Alloca.								
Total Curr. Gen. Income	15,153,261	3,236,591	6,525,855	23,714,924	15,230,552	75,588,247	21,508,375	3,385,427
Add: Transfers	531,570	437,976	1,029,569			5,869,667	2,623,428	196,147
Deduct: Stu. Serv. fees dedicated to debt retirement	593,315	158,511		230,046		149,960	419,892	52,793
Curr. Gen. Income available for alloca.	15,096,516	3,516,051	7,555,424	23,484,878	15,230,552	81,307,954	23,711,911	3,528,781
Alloca. of Curr. Gen. Income:								
Instruction and Gen.	13,784,990	3,115,842	6,137,738	21,461,416	13,131,432	69,969,038	22,277,566	3,204,177
Per Cent	91.3	88.5	81.2	91.4	85.5	86.1	93.9	90.8
Research	67,792			41,400	30,631	2,713,928	167,673	
Per Cent	.4			.2	.2	3.3	.7	
Public Service	56,347	1,447		152,245	43,417	1,243,183	236,525	
Per Cent	.4			.6	.3	1.5	1.0	
Auxiliary Enterprises	368,584	20,437	931,459	587,639	599,684	133,000	672,726	25,426
Per Cent	2.5	.6	12.3	2.5	3.9	.2	2.8	.7
Student Aid	388,695	84,656	165,413	375,518	394,243	2,688,176	482,534	27,456
Per Cent	2.3	2.4	2.2	1.6	2.6	3.3	2.0	.8
Trans. to Plant Funds		123,428		544,921	569,851	1,141,382	329,383	
Per Cent		3.5		2.3	3.7	1.4	1.4	
Other Transfers		15,037	320,814	276,093			135,383	
Per Cent		.4	4.3	1.2			.6	
Unallocated	485,109	155,204		45,646	461,294	3,414,247	(589,879)	271,722
Per Cent	3.2	4.5		.2	3.8	4.2	(2.4)	7.7
Total Allocation	15,096,516	3,516,051	7,555,424	23,484,878	15,230,552	81,307,954	23,711,911	3,528,781

APPENDIX B

Table 8

Allocation of Current General Income Municipal Universities and Community Colleges, Academic Year 1966-67

	U. of Akron	U. of Cln.	U. of Toledo	Cuyahoga Comm. Coll.	Lorain Co. Comm. Coll.
Available for Allocation:					
Total Current General Income	8,702,861	25,517,035	10,127,718	5,450,116	1,859,902
Add: Transfers	1,094,618	1,449,031	235,174		12,823
Deduct: Student Services Fees dedicated to debt retirement	343,937	-0-	98,250		
Current General Income available for allocation	9,453,542	26,966,066	10,264,642		
Allocation of Current General Income					
Instruction and General	7,720,253	24,362,548	9,383,697	5,450,116	1,872,725
Per Cent	81.7	90.3	91.4	5,390,560	1,820,221
Research		450,891		98.9	97.2
Per Cent		1.7			
Public Services	121,616	96,840	46,615	27,691	3,205
Per Cent	1.2	.4	.4	.5	.2
Auxiliary Enterprises		371,597	132,214	23,870	6,759
Per Cent		1.4	1.3	.4	.4
Student Aid		1,439,557	272,981	7,995	
Per Cent		5.3	2.7	.2	
Transfer to Plant Funds		161,500	29,000		
Per Cent		.6	.3		
Other Transfers		83,133			5,940
Per Cent		.3			.3
Unallocated	1,611,673	-0-	400,135		36,600
Per Cent	17.1		3.9		1.9
Total Allocation	9,453,542	26,966,066	10,264,642	5,450,116	1,872,725

APPENDIX B

Table 9

Instruction and General Expenditures State Universities, Academic Year 1966-67

	BGSU	Central	Clev.	Kent	Miami U.	O.S.U.	Ohio U.	Wright State
Departmental Instruction*	7,906,240	1,396,339	3,179,508	11,792,175	7,807,110	49,123,938	12,109,547	2,131,260
Per Cent	57.4	44.8	51.8	54.9	59.5	70.2	54.4	66.5
Off-Campus Instruc.	459,888	10,930	373,771	2,747,260	938,875	1,713,680	2,123,924	
Per Cent	3.3	.4	6.1	12.8	7.1	2.4	9.5	
Instructional Service	361,860	52,611	35,950	515,651	366,960	1,478,928	863,035	28,629
Per Cent	2.6	1.7	.6	2.4	2.8	2.1	3.9	.9
Libraries	557,272	147,698	362,590	927,243	627,283	2,578,081	949,617	302,155
Per Cent	4.0	4.7	5.9	4.3	4.8	3.7	4.3	9.4
Student Services	1,222,520	319,794	404,532	1,457,429	1,077,231	2,354,187	1,630,268	140,544
Per Cent	8.9	10.3	6.6	6.8	8.2	3.4	7.3	4.4
General Expense	724,919	165,546	318,977	899,963	502,996	2,025,193	1,005,280	93,124
Per Cent	5.3	5.3	5.2	4.2	3.8	2.9	4.5	2.9
Plant Operation	1,905,839	744,102	1,010,727	2,103,956	1,352,676	8,279,163	2,427,310	316,461
Per Cent	13.8	23.9	16.5	9.8	10.3	11.8	10.9	9.9
General Administration	646,452	278,822	451,683	1,017,739	458,301	2,415,868	1,168,585	192,004
Per Cent	4.7	8.9	7.3	4.8	3.5	3.5	5.2	6.0
Total	13,784,990	3,115,842	6,137,738	21,461,416	13,131,432	69,969,038	22,277,566	3,204,177
*Dept. Instruction:								
Faculty Salaries	5,219,048	1,072,418	2,398,928	7,281,032	5,357,304	24,672,099	8,353,472	1,838,327
Per Cent	66.0	76.8	75.4	61.9	68.6	50.2	69.0	86.3
Other Salaries	1,288,788	93,549	234,155	2,269,234	1,171,203	13,182,874	978,267	30,722
Per Cent	16.3	6.7	7.4	19.1	15.0	26.8	8.1	1.4
Other Expenditures	1,398,404	230,372	546,425	2,241,909	1,278,603	11,268,965	2,777,808	262,211
Per Cent	17.7	16.5	17.2	19.0	16.4	23.0	22.9	12.3
Total	7,906,240	1,396,339	3,179,508	11,792,175	7,807,110	49,123,938	12,109,547	2,131,240

APPENDIX B

Table 10

Instruction and General Expenditures Municipal Universities and Community Colleges, Academic Year 1966-67

	U. of Akron	U. of Cin.	U. of Toledo	Cuyahoga Comm. Coll.	Lorain Co. Comm. Coll.
Departmental Instruction*	4,475,284	17,195,020	6,303,943	2,919,815	1,039,693
Per Cent	58.0	70.6	67.2	54.2	57.1
Instructional Service	243,637	270,232	85,783	148,125	
Per Cent	3.2	1.1	.9	2.7	
Libraries	191,272	776,673	398,077	208,209	78,205
Per Cent	2.5	3.2	4.2	3.9	4.3
Student Services	539,221	1,154,934	578,475	628,843	189,429
Per Cent	6.8	4.7	6.2	11.7	10.5
General Expense	853,734	1,348,886	565,123	344,842	182,077
Per Cent	11.1	5.5	6.0	6.4	10.0
Plant Operation	832,145	2,599,500	1,035,500	778,967	223,724
Per Cent	10.8	10.7	11.0	14.5	12.3
General Administration	584,960	1,017,253	416,796	361,759	107,093
Per Cent	7.6	4.2	4.5	6.6	5.8
Total	7,720,253	24,362,548	9,383,697	5,390,560	1,820,221

*Departmental Instruction

Faculty Salaries	3,215,335	12,157,886	4,520,522	2,007,894	877,884
Per Cent	71.8	70.7	71.7	68.8	84.4
Other Salaries	338,208	2,032,494	687,756	384,898	105,520
Per Cent	7.6	11.8	10.9	13.2	10.2
Other Expenditures	921,741	3,004,640	1,095,665	527,023	56,289
Per Cent	20.6	17.5	17.4	18.0	5.4
Total	4,475,284	17,195,020	6,303,943	2,919,815	1,039,693

APPENDIX B

Table 11

Income and Expenditures For Research State Universities, Academic Year 1966-67

	BGSU	Central	Clev.	Kent	Miami	O.S.U.	Ohio U.	Wright State
Income:								
State Appropriations					17,022	1,250,000		
Endowments					144,568	66,182		
Gov't. Grants and Contracts	223,131	15,304		509,670	23,543	15,806,114	380,184	
Other				76,771		512,403	62,327	
Total	223,131	15,304		586,441	185,133	17,634,699	442,511	
Expenditures:	290,923	29,945		641,534	215,764	20,353,627	610,184	
Excess or (Deficiency)	(67,792)	(14,641)		(55,093)	(30,631)	(2,718,928)	(167,673)	
Allocations:								
Supported by prev. bal.		14,641		13,693				
Supported out of curr. general income	67,792			41,400	30,631	2,718,928	167,673	

APPENDIX B

Table 12

Income and Expenditures For Research Municipal Universities and Community Colleges, Academic Year 1966-67

	U. of Akron	U. of Cin.	U. of Toledo	Cuyahoga Comm. Coll.	Lorain Co. Comm. Coll.
Income:					
State Appropriations		190,041			
Endowments		3,697,387			
Government Grants & Contracts	264,379	2,354,822			
Other	94,140				
Total Income	358,519	6,242,250			
Expenditures	358,519	6,693,141			
Excess or (Deficiency)	-0-	(450,891)			
Allocation:					
Supported by Prev. Bal.					
Supported out of Current					
General Income		450,891			

APPENDIX B

Table 13

Income and Expenditures — Public Service Programs State Universities, Academic Year 1966-67

	BGSU	Central	Clev.	Kent	Miami U.	O.S.U.	Ohio U.	Wright State
Institutes and Workshops								
Income	921,636	131,614	5,743	836,005	223,199	113,543	1,763,286	
Expense	858,776	133,061		836,005	239,459	164,115	1,769,493	
Difference	62,860	(1,447)	5,743	-0-	(16,260)	(50,572)	(6,207)	
Overseas Projects								
Income				23,073		1,196,791	1,353,490	
Expense				23,073		1,196,791	1,415,966	
Difference				-0-		-0-	(62,476)	
Telecommunication Center								
Income						16,418		
Expense						774,006		
Difference						(757,588)		
University Press								
Income				9,381		5,163	41,061	
Expense				60,153		188,513	119,510	
Difference				(50,772)		(183,350)	(78,449)	
Medical Center								
Income						18,103,649		
Expense						17,028,335		
Difference						1,075,314		
Coop Extension								
Income						6,549,000		
Expense						6,549,000		
Difference						-0-		
Other								
Income	-0-			231,763	44,592	1,166,496	34,210	
Expense	17,272			337,107	71,749	1,409,183	123,603	
Difference	(17,272)			(105,344)	(27,157)	(242,687)	(89,393)	
Excess or (Deficiency)	45,588	(1,447)	5,743	(156,116)	(43,417)	(158,883)	(236,525)	
Allocations								
To existing bal. or reserve	101,935		5,743					
Support out of Current General Income	56,347			152,245	43,417	158,883	236,525	
Out of previous balance		1,447		3,871				

TABLE 14

**Income and Expenditures — Public Service Program
Municipal Universities and Community Colleges, Academic Year 1966-67**

	U. of Akron	U. of Cin.	U. of Toledo	Cuyahoga Comm. Coll.	Lorain Co. Comm. Coll.
Institutions and Workshops					
Income	111,358	25,634	143,553		
Expense	14,113	30,618	190,168		
Difference	97,245	(4,984)	(46,615)		
Overseas Projects					
Income					
Expense					
Difference					
Telecommunications Center					
Income		4,482			
Expense		95,855			
Difference		(91,373)			
University Press					
Income					
Expense					
Difference					
Medical Center					
Income		11,412,052			
Expense		10,677,803			
Difference		734,249			
Cooperative Extension					
Income					
Expense					
Difference					
Other					
Income	121,616	483		40,178	
Expense	(121,616)	(483)		67,869	
Difference	(24,371)	637,409	(46,615)	(27,691)	
Excess or (Deficiency)				(27,691)	
Allocations					
To existing bal. or reserves		734,249			
Support out of curr. income	24,371	96,840	46,615		27,691
					52

APPENDIX B

Table 15

Income and Expenditures — Auxiliary Enterprises State Universities, Academic Year 1966-67

	BGSU	Central	Cleve.	Kent	Miami U.	O.S.U.	Ohio U.	Wright State
Residence and Dining								
Income	6,094,037	1,339,643	106,741	5,659,542	5,746,087	8,334,321	7,734,142	
Expense	5,946,389	936,225	133,297	5,296,995	4,433,131	7,683,565	6,021,787	
Difference	147,648	403,418	(26,556)	362,547	1,312,956	650,756	1,712,355	
Student Union								
Income	992,041	193,410		718,505	1,410,414	1,344,114	1,120	
Expense	1,150,299	156,521	25,078	853,577	1,425,561	1,552,810	76,146	
Difference	(158,258)	36,889	(25,078)	(135,072)	(15,147)	(208,696)	(75,026)	
Bookstore								
Income	804,379	140,340	547,820	1,386,172		1,901,916	13,388	-0-
Expense	796,674	137,947	590,848	1,278,237		1,816,253	9,430	25,426
Difference	7,705	2,393	(43,028)	107,935		85,663	3,958	(25,426)
Intercoll. Athletics								
Income	204,399	87,445		196,081	185,661	2,977,519	210,653	
Expense	442,953	91,363	70,348	649,748	585,345	2,556,150	762,124	
Difference	(238,554)	(3,918)	(70,348)	(453,667)	(399,684)	421,369	(551,471)	
Airport								
Income				53,826	54,043	489,258	61,066	
Expense				66,266	60,354	504,750	103,181	
Difference				(12,440)	(6,311)	(15,492)	(42,115)	
Other								
Income	1,083,969	29,206	129,991	543,453	143,748	1,874,981	21,899	2,456
Expense	1,188,137	18,383	308,888	527,918	102,647	1,445,270	26,013	-0-
Difference	(104,168)	10,823	(178,897)	15,535	41,101	429,711	(4,114)	2,456
Excess or (Deficiency)	(345,627)	449,604	(343,907)	(115,162)	932,915	1,363,311	1,043,587	(22,970)
Allocations:								
Surplus: to Curr. Gen. Inc.								2,456
To prev. bal. or other acct.	186,523	453,522	84,942	486,017	1,538,910	1,587,499	1,716,313	
Deficiency supported out of								
prev. bal. or by transfer	85,766		41,196	13,540	6,311	91,188		
Current General Income	446,384	3,918	387,653	587,639	599,684	133,000	672,726	25,426

APPENDIX B

Table 16

Income and Expenditures — Auxiliary Enterprises Municipal Universities and Community Colleges, Academic Year 1966-67

	U. of Akron	U. of Cin.	U. of Toledo	Cuyahoga Comm. Coll.	Lorain Co. Comm. Coll.
Residence and Dining					
Income	802,632	2,636,499	503,453		
Expense	402,593	2,207,209	392,783		
Difference	400,039	429,290	110,670		
Student Union					
Income	299,242	323,847	202,600	2,882	
Expense	508,853	402,766	164,280	816	
Difference	(209,611)	(78,919)	38,320	2,066	
Bookstore					
Income	709,434	1,068,797	896,727	500,540	155,058
Expense	688,278	1,041,773	810,543	486,207	140,058
Difference	26,156	27,024	86,184	14,333	15,000
Intercollegiate Athletics					
Income	141,519	401,240	464,514	429	9,325
Expense	154,879	693,918	596,728	24,299	12,530
Difference	(13,360)	(292,678)	(132,214)	(23,870)	(3,205)
Airport					
Income					
Expense					
Difference					
Other					
Income		3,195,595			
Expense		2,986,944			
Difference		208,651			
Excess or (Deficiency)	203,224	293,368	102,960	(7,471)	(11,795)
Allocation:					
To existing balance or reserve	426,195	664,965	235,174	16,398	15,000
Support out of current general income		371,597	132,214	23,870	3,205
Support out of previous bal. in same account	222,971				

APPENDIX B

Table 17

Income and Expenditures — Student Aid
State Universities, Academic Year 1966-67

	BGSU	Central	Clev.	Kent	Miami U.	O.S.U.	Ohio U.	Wright State
Income								
Endowment		1,087			33,117	185,931	50,033	
Private		3,244	22,693	35,636	78,609	974,202	3,292	
Governmental		125,392	70,784	332,793	52,911	3,361,610	208,956	
Other Sources		213	44,769	-0-	150	285,767	375,770	
Total Income		129,936	138,246	368,429	164,787	4,807,510	638,051	
Expenditures								
Scholarships		200	53,261	368,429	136,533	4,432,432	338,695	21,339
Fees Waived	333,695	88,955	35,773	375,518	383,247	2,931,436	387,790	6,117
Other		125,437	76,379		39,250	131,818	394,100	
Total Expenditures	333,695	214,592	165,413	743,947	559,030	7,495,686	1,120,585	27,456
Excess or (Deficiency)	(333,695)	(84,656)	(27,167)	(375,518)	(394,243)	(2,688,176)	(482,534)	(27,456)
Allocation:								
To existing balance or reserve		84,656	27,167	375,518	394,243	2,688,176	482,534	27,456
Support out of current general income	333,695							

APPENDIX B

Table 18

Income and Expenditures — Student Aid
Municipal Universities and Community Colleges, Academic Year 1966-67

	U. of Akron	U. of Cin.	U. of Toledo	Cuyahoga Comm. Coll.	Lorain Co. Comm. Coll.
Income					
Endowment	33,614	166,422		34,599	550
Private	303,154	202,281		35,302	40,210
Governmental		215,417			
Other Sources					
Total Income	336,768	584,120		69,901	40,760
Expenditures					
Scholarships	207,900	917,092	106,006	69,901	300
Fees Waived	96,346	1,077,991	166,975	7,995	3,059
Other		28,594			31,214
Total Expenditures	304,246	2,023,677	272,981	77,896	34,573
Excess or (Deficiency)	32,522	(1,439,557)	(272,981)	(7,995)	6,187
Allocation:					
To existing bal. or reserve	32,522				6,187
Support out of current general income		1,439,557	272,981		
Transfer from other accounts				7,995	

APPENDIX B

Table 19

Instructional and General Expenditures Per Student Main Campus, Academic Year 1966-67

	Bowling Green	Central State	Cleveland State	Kent State	Miami U.	Ohio State	Ohio U.	Wright State	Cuyahoga Comm. Coll.	Lorain Co. Comm. Coll.
Instruction and General Expenditures _____ (off-campus excluded)	\$19,326,102	\$3,104,912	\$5,763,967	\$18,714,156	\$12,192,557	\$68,255,358	\$20,153,642	\$204,177	\$5,390,560	\$1,820,231
On-Campus Full-Time Equivalent Student's _____	12,363	2,419	5,554	18,217	11,969	41,969	16,135	3,203	6,075	1,983
Total Expenditures per FTE _____	1,079	1,284	1,038	1,027	1,019	1,658	1,249	999	887	918
Departmental Instruction _____	640	577	573	647	652	1,194	751	664	481	524
Instructional Service _____	29	22	7	28	31	36	53	9	24	-
Libraries _____	45	61	65	51	53	63	59	94	34	39
Student Services _____	98	132	73	80	90	57	101	44	104	96
General Expense _____	59	69	57	49	42	49	62	29	57	92
Plant Operation _____	155	308	182	116	113	200	150	99	127	113
General Administration _____	53	115	81	56	33	59	73	60	60	54

APPENDIX C**Table 20****Financial Report of the Ohio Board of Regents
Fiscal Year Ending June 30, 1967****General Revenue Fund****Available for Expenditure:**

Appropriation in H. B. 200	\$383,250.00
Transferred from 1966	<u>25,000.00</u>

Total Available	\$408,250.00
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Less Encumbrances:**Personal Service**

Staff	\$92,356.77
Consultants	<u>11,239.82</u>

Maintenance	\$103,596.59
Equipment	57,874.88
Regents' Professorships	484.89
Univ. Res. Center Studies	200,000.00
Transferred to Lakeland Comm. Coll.	25,000.00
	<u>20,000.00</u>

Total Encumbrances	<u>406,956.36</u>
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Unencumbered Balance, June 30, 1967	\$ <u>1,293.64</u>
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Rotary - Higher Education Facilities Act**Available for Expenditure:**

Allocation from Federal Government	\$ 38,400.00
Carried forward from 1966	<u>1,616.57</u>

Total Available	\$ 40,016.57
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Less Encumbrances:

Personal Service and Related Benefits	\$ 31,966.39
Maintenance	7,284.92
Equipment	<u>561.81</u>

Total Encumbrances	<u>39,813.12</u>
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Unencumbered Balance, June 30, 1967	\$ <u>203.45</u>
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APPENDIX C
Table 20 (continued)

Rotary - Community Service and Continuing Education

Available for Expenditure:		
Allocation from Federal Government		\$350,080.00
Less Encumbrances:		
Personal Service and Related Benefits	\$ 15,332.77	
Maintenance	2,619.64	
Program Grants	<u>330,932.27</u>	
Total Encumbrances		<u>348,884.68</u>
Unencumbered Balance, June 30, 1967		<u><u>\$ 1,195.32</u></u>

Rotary - Technical Services Act

Available for Expenditure:		
Allocation from Federal Government		\$ 52,924.50
Carried forward from 1966		<u>3,444.28</u>
Total Available		\$ 56,368.78

Less Encumbrances:		
Personal Service		
Staff and Related Benefits ...	\$1,907.96	
Consultants	15,194.51	
	\$ 17,102.47	
Maintenance	2,364.53	
Program Grants	<u>32,809.50</u>	
Total Encumbrances		<u>52,276.50</u>
Unencumbered Balance, June 30, 1967		<u><u>\$ 4,092.28</u></u>

Improvements Fund

Available for Expenditure:		
Carried forward from 1966		\$ 8,494.14
Less Encumbrances:		
Modular Construction - Newark		<u>6,780.34</u>
Unencumbered Balance, June 30, 1967		<u><u>\$ 1,713.80</u></u>

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Mr. Gordon Spelman
Kent State University

Mr. Steve Springer
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